

NI SCIENCE FESTIVAL

16—26 FEBRUARY 2017
11 DAYS. 150+ EVENTS. INFINITE IDEAS.

Director's Foreword

We are delighted to present you the full public programme for the third NI Science Festival, an annual celebration of science, technology, engineering, arts and mathematics. Thanks to the generous and continuous support of our Principle Funders & Partners, we've been able to deliver our largest selection of events to date championing great pioneers both locally and internationally and expand our horizons to include more of Northern Ireland than ever before.

During the day, the Festival offers a range of workshops, talks and interactive activities for young people and parents. In the evening we will present a mix of scientific debate, talks, theatres, comedy, music and film for adults.

For the first time, the Festival we will be taking an eclectic selection of family friendly events across all disciplines across the province for the NISF Road Show, to get the mind bursting with curiosity while presenting a programme of events with increased emphasis on celebrating the science behind Northern Ireland's world class food and drink. We welcome you all to join us.

The Festival Team.

The Festival Team

Festival Director: Chris McCreery

Programme & Production Manager: Jillian Thompson

Regional Programme Manager: Susan Heaney

North West Programme Manager: Rachel McDermott

Communications & PR: Geoff McGimpsey

Marketing and Admin: Andrew Moore

Graphic Design: Rinky | rinkydesign.com

Website: Steven Henry | kingsteven.com

General Enquiries

NI Science Festival

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Tel: 028 9162 92044 | info@nisciencefestival.com

 [niscifest](https://www.facebook.com/niscifest)  [niscifest](https://twitter.com/niscifest)

Booking information

Most of our events are open to the public. Suitability, admission and booking information are indicated in the listings.

Ticketing links for events can be found via the festival website nisciencefestival.com. Please bring a printed or email copy of your ticket to the event. Concession rates apply to those aged 16 and under, over 65s, students, the unemployed, disabled persons and their personal assistants, unless otherwise stated. Proof of status may be required.

The Festival Board

Alan Blair, Claire Burgoyne, Tony Byrne, Liz Conlon (Chair), Bill Connor, Alan Fitzsimmons, Judith Harvey, Sarah Jones, Emma Leahy, Frances Morton, Jonathan Wallace, John Winder (Treasurer).

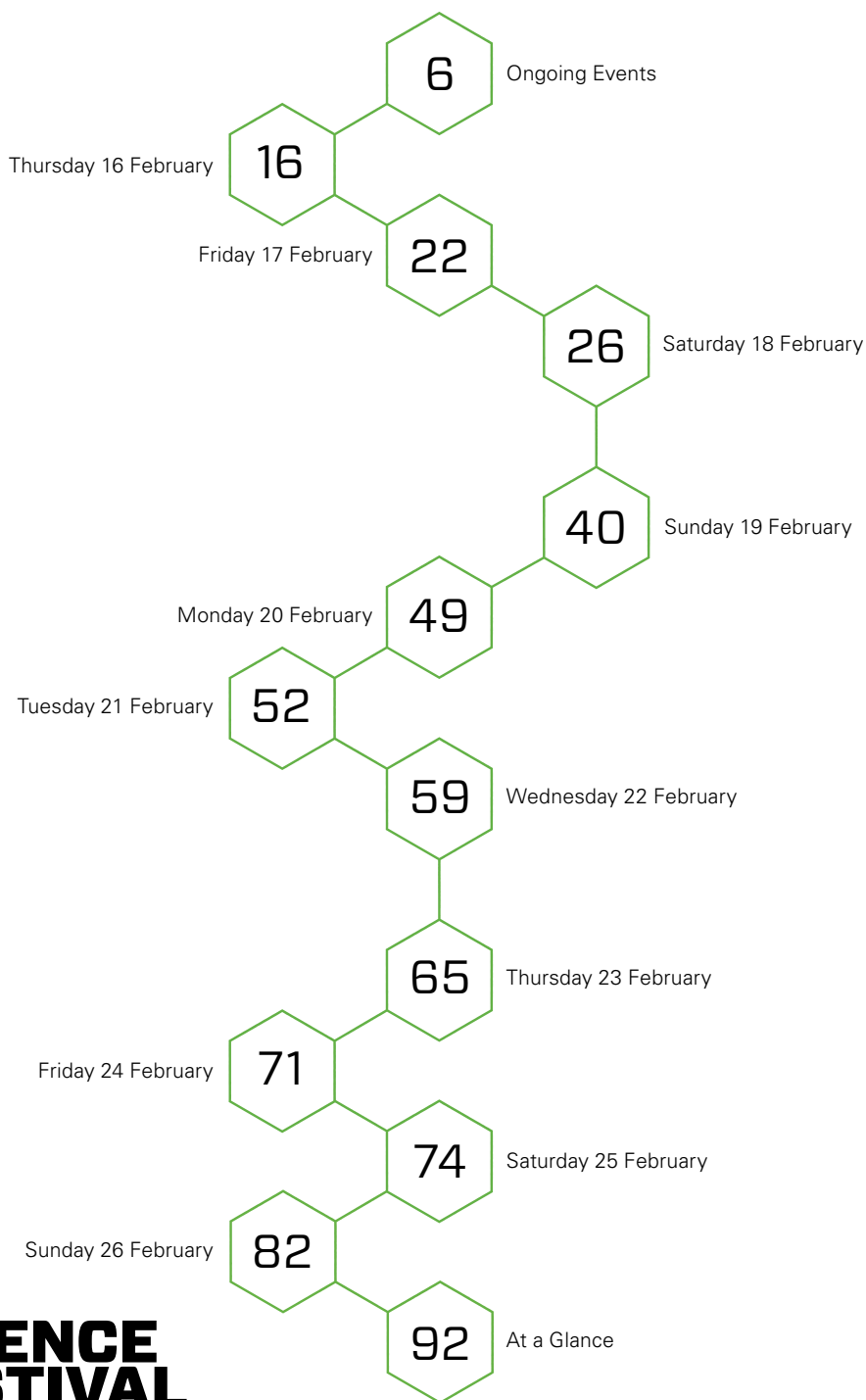
Disabled Access

All partnering venues aim to be as accessible as possible however a small number have restricted access. Should you or your group require information or assistance please contact info@nisciencefestival.com. Venue Information is also available through the Access400 online service at adaptni.org.

Programme Changes

Please note that all events are subject to change. Be sure to check our website or social media forums for the most up to date information.

11 DAYS. 150+ EVENTS. INFINITE IDEAS.
NISCIENCEFESTIVAL.COM



Our Funders



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City Council



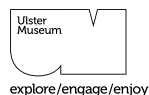
Queen's University
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Our Partners



THE
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BELFAST
EXPOSED



STRAND
ARTS CENTRE



ArtisAnn



STEM Aware

Media Partner



Accommodation Partner





Festival Opening Gala Anything but Bland

DATE Wednesday 15 February	TIME(S) 6:30PM & 8:30PM
VENUE Ulster Hall, 34 Bedford St, Belfast BT2 7FF	SUITABILITY All ages
ADMISSION & BOOKING £12/£8 concession. Book via nisciencefestival.com	

Dumbworld, in association with the Ulster Orchestra and the NI Science Festival, presents a large scale, orchestral/choral performance that combines 200 female singers of all ages, together with stunning video projection and the wonderful Ulster Orchestra.

In 1910, a young woman living in Carnmoney became the first woman in the world to design, build and fly an airplane. Her name was Lilian Bland.

200 women and girls from around Northern Ireland will join the Ulster Orchestra in this riotous and inspiring musical and visual production, inspired by the story of this trailblazing inventor and aviator created by composer Brian Irvine and writer John McIllduff.



Belfast
City Council

Arts
& Business
Northern Ireland



MCS GROUP
INTELLIGENT RECRUITMENT SOLUTIONS



SCIENCE COMMUNICATION

NI Science Festival Roadshow

DATE

16 February: STEM Centre, South West College, Circular Road, Dungannon
 17 February: South West College, 1 Dublin Road, Enniskillen (Old gaol site)
 18 February: Southern Regional College, Patrick Street, Newry
 19 February: Northern Regional College, Union Street, Coleraine

TIME

10AM - 5:30PM

SUITABILITY

All ages

ADMISSION & BOOKING

Free. Register via nisciencefestival.com

Northern Ireland Science Festival is bringing a brand new, free roadshow to a town near you! Between February 16 and 19, the team will bring a flavour of the festival to families at venues across Northern Ireland, featuring a variety of talks, shows and interactive activities, which will captivate and enthral visitors of all ages.

- Visit deep space in 3D to take a broader look at our universe
- Learn all about exploding vegetables as fuels of the future
- Handle some of the exotic animals, which have been seized by HM Revenue and Customs
- Try star-gazing in with the Armagh Observatory's Portable Planetarium
- Get hands-on in the tech-filled STEM module
- Perform your own exploding scientific experiments
- Learn about the life of a river and how bugs are used to measure pollution
- Make your own "X-rays"
- Build a working lunar buggy





ART AND SCIENCE

Artist in Residence

Michael Hanna: Predictable Contact

DATE	Ongoing 16-26 February	
TIME(S)	11AM-4PM, Tue-Sun	
VENUE	The Naughton Gallery at Queen's, University Road, Belfast	SUITABILITY
		14+
ADMISSION & BOOKING		
Free. Drop in.		

Belfast-based Michael Hanna is the official Artist in Residence for Northern Ireland Science Festival 2017. Within his practice, Hanna appropriates evocative materials including acoustic foam and perforated steel, along with tactile art materials such as wet clay, rubber and plastics. These are integrated with video projection and animation in what has been described as showing a “healthy disregard for institutional boundaries between disciplines.” Predictable Contact sees the creation of immersive, synthetic environments using a combination of sculptural elements, video and sound. It is inspired by scientific methodology and classification, and continues the artist’s interest in psychological research on learning. The exhibition considers how we make sense of the world both visually and conceptually.



TECH AND DIGITAL

Makeshop

DATE	TIME(S)
Ongoing 16-26 February	9AM-5PM
VENUE	SUITABILITY
Belfast City Centre (check website for details)	All ages
ADMISSION & BOOKING	
Various (check website for details)	

MAKESHOP is a one-of-a-kind workshop space where people of all ages can explore and experiment with design, science, art and technology. It's also a shop, selling kits and materials for your own projects, to get you making at home. MAKESHOP has a permanent space in Trinity College Dublin, and we are popping up in Belfast city centre for NI Science Festival, bringing hands-on workshops in DIY robotics, coding, soldering and more to anyone with a curious mind and an interest in making. Here are a few highlights:

- Create interactive art: Design posters that play music when touched, and greeting cards that light up
- Make things that move: Learn how to assemble a simple circuit and use it to power robots that can move, draw, or fire paper planes
- Learn to solder: Find out how to attach electronic components to a circuit board and build LED torches and other fun electronics projects

See our website for our full schedule.

MAKESHOP
LET'S MAKE STUFF...





SCIENCE COMMUNICATION

The Silent Science Show

DATE Ongoing 16-26 February	TIME(S) Various times Check W5online.com for info
VENUE W5, The SSE Arena, 2 Queens Quay, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free with admission to W5	

"SSSSSHH...we need some Sci-lence!"

Following on from the success of last year's "Big Bang Theatre", W5 brings you the Silent Science Show! Take your seats for some slapstick science in a unique black and white, silent stage show!! Prepare yourself for exciting, experimental and somewhat unusual family theatre this February. Danger, humour, excitement and some very cool science combine to make a really entertaining experience. And best of all, it's FREE with admission to W5.

Show lasts 30 - 40 minutes, visit www.w5online.co.uk for more information and show times.



ART AND SCIENCE

The Sounds of Science

An Exhibition by Dr Josephine McCormick

DATE Ongoing 16-26 February	TIME(S) Wed - Fri: 11AM-6PM Sat: 12-5pm
VENUE ArtisAnn Gallery, 70 Bloomfield Avenue, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free drop-in.	

Josephine McCormick's work weaves sound and voice within visual layers towards producing art that is beautiful, delicate and extraordinary. These artworks, funded by the Arts Council of Northern Ireland, celebrate significant events and discoveries in science that have resulted in paradigm shifts in our knowledge of how the world, and the universe, works.

Josephine has visually rendered the voice of significant scientists and embedded them within her artworks. This enables viewers to have an immersive experience of breakthrough moments in scientific history. Significant voices will include: Jocelyn Bell Burnell, John Stewart Bell, Albert Einstein, Neil Armstrong, Andre Konstantin Geim and Konstantin Sergeevich, Novoselov, Craig Venter, Stephen Hawking, Alexander Graham Bell and Michio Kaku.



ArtisAnn



ART AND SCIENCE

Reassembled, Slightly Askew

DATE Ongoing 16-26 February	TIME(S) Various times, check website for details (90 mins)
VENUE The MAC, 10 Exchange Street, Belfast	SUITABILITY 16+
ADMISSION & BOOKING £12. Book via nisciencefestival.com	

Reassembled, Slightly Askew is an autobiographical, audio-based artwork about Shannon's experience of falling critically ill with a rare brain infection and her journey of rehabilitation with an acquired brain injury.

Audience members experience Reassembled... individually, listening to the audio via headphones, while lying on a hospital bed. The audio technology makes the sound three-dimensional, causing listeners to feel they are inside Shannon's head, viscerally experiencing her near-death experience and re-integration into the world with a hidden disability. It is a story of terror, discovery, humour; but above all, hope. Due to the nature of the show, latecomers cannot be admitted.

★★★★★

-The Stage

★★★★★

-The Guardian





ART AND SCIENCE

Antonyms of Chaos

DATE Ongoing 16-26 February Opening Night Reception: 17 Feb, 7PM Schools Talk: 20 Feb, 10AM Public Talk: 22 Feb 7PM	
VENUE Garden Of Reflection, 16 Bishop Street, Derry/Londonderry, BT48 6PW	SUITABILITY All ages
ADMISSION & BOOKING Free. Drop-in.	

Working with oils on canvas, Professor Harry McMahon has brought to bear his background as a physicist and one time science teacher to overlay diagrammatic references to science on complex, near chaotic backgrounds. Drawing on the work of Greek philosophers like Ptolemy and Eratosthenes, pioneering scientists and mathematicians like Newton, Euler, Lovelace and Hamilton and post-1900 figures such as Curie, Meitner, Hodgkin, Bell and Higgs, each painting celebrates a significant example of humankind's attempts to bring conceptual order to what might otherwise be seen as an incomprehensible, chaotic world. Each work is accompanied with a short text telling the science story behind the painting.



ART AND SCIENCE

Resilience: Everyday Magic

DATE Ongoing 16-26 February	TIME(S) Showcase event 24 February 6:30PM
VENUE Ulster University, York Street, Belfast, BT15 1ED	SUITABILITY All ages
ADMISSION & BOOKING Free drop-in.	

Resilience: Everyday Magic explores the science behind human resilience, an increasingly used term in our everyday conversations. Resilience has powerful connotations but has a wide variety of definitions and interpretations. Working in collaboration, the artist Heather Dornan-Wilson, choreographer Suzannah McCreight and Ulster University psychologist, Dr Victoria Simms, interpret scientific research in this area.

A showcase on the 24th of February at 6:30pm will feature a brief talk by Prof Tony Cassidy (Ulster University) titled "The Science of Resilience" and dance by Suzannah McCreight, followed by a drinks reception. This event is sponsored by Ulster University: Research and Innovation



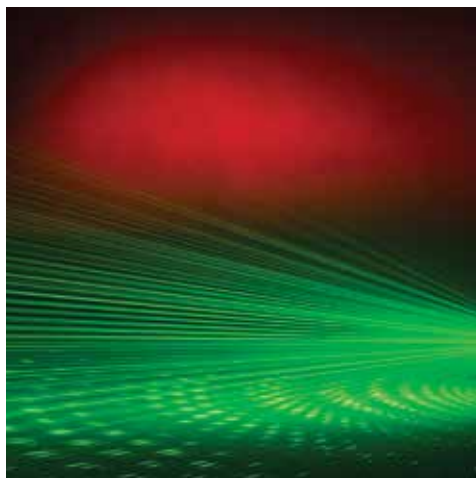
ART AND SCIENCE

International Images for Science Exhibition

DATE Ongoing 16-26 February	TIME(S) 9AM-5PM	SUITABILITY All ages
VENUE Millennium Forum, Newmarket St, Derry/Londonderry		
ADMISSION & BOOKING Free drop-in.		

International Images for Science is an exhibition of eye-catching photographs that show how science is all around us. The subjects range from the smallest microbes to the distant universe and were taken by a wide assortment of students, amateur photographers and the very best researchers and science photographers. Some images were made on million-pound microscopes, others captured on smartphones and everything in between! 100 images were chosen from over 2500 entries. Each is visually stunning yet also has a science story to tell.

THE **RPS**
ROYAL PHOTOGRAPHIC SOCIETY



MATHS AND PHYSICS

Lasers Live

DATE Ongoing 16-26 February	TIME(S) 10:30AM	SUITABILITY All ages
VENUE Ulster Museum, Welcome Zone, Botanic Gardens, Belfast		
ADMISSION & BOOKING Free drop-in.		

Ever wondered why a light bulb brightens up a whole room while a laser produces only a very narrow beam of light? Lasers Live will demonstrate how light is a form of energy, how different colours interact differently, and how lasers can provide us with technologies that were the stuff of dreams just a decade ago. Experts from the Centre for Plasma Physics, Queen's University Belfast, will be on hand to explain these topics and many more. A unique opportunity for adults and children alike to discover how research by laser and plasma physicists at Queen's is playing a leading role in how our future world will look.





EARTH AND ELEMENTS

The Elements Exhibition Condensed

DATE Ongoing 16-26 February	TIME(S) Saturday 18th February to Saturday 15th April. 10-5 Monday-Friday; 10-4 Saturday; CLOSED Sunday
VENUE Carrickfergus Museum and Civic Centre, 11 Antrim St, Carrickfergus BT38 7DG	SUITABILITY All ages
ADMISSION & BOOKING Free drop-in.	

Using items from Carrickfergus Museum's own collections, and others on loan, this exhibition provides a flavour of what you can see at the Ulster Museum but with its own local twist. It shines a different light on some of the museum's objects - from the everyday to the exotic, the beautiful to the bizarre - and will be sure to intrigue or enthrall every visitor.



explore/engage/enjoy



SPACE

Baby Sensory Space Adventure

DATE Ongoing 22-28 February	TIME(S) 10AM
VENUE Venues across Northern Ireland	SUITABILITY Newborn to 13 months
ADMISSION & BOOKING For bookings visit www.babysensory.com	

Blast Off! Baby Sensory is taking you and your babies on a Space Adventure. We will be heading into outer space, seeing spinning planets, doing the Martian hop and reaching for the stars! This is an amazing session which will focus on your baby's visual development.

Films at the Nerve Centre



Another Earth

2011, UK, Dir. Mike Cahill

DATE Tuesday 21 February	TIME(S) 7:30PM	
VENUE Nerve Centre, 7-8 Magazine Street. Derry, BT48 6HJ		SUITABILITY 15+
ADMISSION & BOOKING £3 (Pay at door)		

Another Earth is a film animated by one stunning image: A new planet four times the size of the moon appears in the sky of Earth. This startling apparition gives a deeper meaning to everything in the story, especially when it is discovered, that the planet is indeed, as the title promises, Another Earth. Perhaps not a second Earth however, but the very same Earth, in another universe that has now become visible.

Moon

2009, UK, Dir. Duncan Jones

DATE Monday 20 February	TIME(S) 7:30PM	
VENUE Nerve Centre, 7-8 Magazine Street. Derry, BT48 6HJ		SUITABILITY 15+
ADMISSION & BOOKING £3 (Pay at door)		

Astronaut Sam Bell's (Sam Rockwell) three-year shift at a lunar mine is finally coming to an end, and he's looking forward to his reunion with his wife (Dominique McElligott) and young daughter. Suddenly, Sam's health takes a drastic turn for the worse. He suffers painful headaches and hallucination and almost has a fatal accident. He meets what appears to be a younger version of himself, possibly a clone. With time running out, Sam must solve the mystery before the company crew arrives.

Particle Fever

2011, UK, Dir. Mike Cahill

DATE Wednesday 22 February	TIME(S) 7:30PM	
VENUE Nerve Centre, 7-8 Magazine Street. Derry, BT48 6HJ		SUITABILITY 15+
ADMISSION & BOOKING £3 (Pay at door)		

Particle Fever is a 2013 American documentary film tracking the first round of experiments at the Large Hadron Collider near Geneva, Switzerland. The film follows the experimental physicists at CERN who run the experiments, as well as the theoretical physicists who attempt to provide a conceptual framework for the LHC's results. The film begins in 2008 with the first firing of the LHC and concludes in 2012 with the successful identification of the Higgs boson.



SCIENCE COMMUNICATION

Waste Watchers

DATE, TIME & VENUE

15 Feb: 9:30AM, 11.30AM, 2.00PM & 3.30PM
Larne Town Hall, 9 Upper Cross St, Larne

16 Feb: 9:30AM & 11AM
Market Place Theatre, Market St, Armagh BT61 7BW

16 Feb: 1:30PM & 3PM
Brownlow Rd, Craigavon BT65 6DL

17 Feb: 9:30AM & 11AM
Old Town Hall, 1 Scarva Street, Banbridge BT32 3DA

17 Feb: 2:30PM & 4PM
Aurora Leisure Ctr, 3 Valentine Rd, Bangor BT20

23 Feb: 6PM
Island Arts Centre, Lagan Valley Island, Lisburn BT27 4RL

SUITABILITY

6+

ADMISSION & BOOKING

£3. Book via nisciencefestival.com

Is plastic fantastic or just a load of rubbish?

W5 has teamed up with WRAP (UK Waste and Resource Action Programme) to bring you this interactive show about some of the science behind waste. Bring the family along and learn about what cavemen and jam jars have in common, how car seats can be made from plastic bottles and what happens to some greenhouse gases when set alight! Guaranteed to be the most fun you've had with landfill!





NATURAL WORLD

Whose Head

DATE	Thursday 16 February	TIME(S)	12-4PM
VENUE	Elements Exhibition, Ulster Museum, Botanic Gardens, Belfast BT9 5AB	SUITABILITY	6+
ADMISSION & BOOKING			
Free, drop-in event. No booking required.			

We've gone deep into the Museum stores and unearthed some of our oldest and strangest skulls - but can you guess which animals they are from? You will be able to touch most of them, but some may just be too small and fragile. You can be sure, however, that some will be just downright weird.



explore/engage/enjoy



SPACE

Are There Any Aliens Out There?

DATE	Thursday 16 February	TIME(S)	6:30PM
VENUE	Ulster Museum, Botanic Gardens, Belfast BT9 5AB	SUITABILITY	12+
ADMISSION & BOOKING			
Free. Book via nisciencefestival.com			

Ever wondered what lives beyond this solar system? Professor Monica Grady from The Open University will present a talk considering the possibilities of alien life: what might it look like? Where would it live? How would we communicate with it?

Make sure to come along and enjoy what knowledge a professor in planetary and space sciences has to share!



The Open University



MIND & BODY

Zombie Science: Worst Case Scenario

DATE	Thursday 16 February	TIME(S)	12-1PM & 3-4PM
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	13+
ADMISSION & BOOKING			
£6 / £3 Concession			

Worst Case Scenario; the world's first fully certified interactive tutorial in dealing with a real Zombie outbreak – can you survive?

Zombie Science is back with a spoof tutorial on the real science behind a disease outbreak. Join Theoretical Zombiologist Doctor Austin as he puts you at the heart of a hypothetical Zombiism outbreak and teaches you what to do should a Zombie outbreak occur. Featuring a multi-media presentation and interactive demonstrations the outcome of the outbreak is down to you!

Supported by the Wellcome Trust and University of Glasgow. Certified by the Zombie Institute for Theoretical Studies.

"Superbly entertaining...Doctor Austin is quirky and engaging, a delicate mixture of innocence and darker undertones."

★★★★★ – **Edinburgh Spotlight**

"Genuine educational entertainment, stupidly funny and thought-provoking."

★★★★ – **Latest 7**



SCIENCE COMMUNICATION

Pioneering Research at Queen's

DATE	Thursday 16 February	TIME(S)	4-7PM
VENUE	Whitla Hall, Queen's University Belfast, University Road, Belfast, BT7 1NN	SUITABILITY	10+
ADMISSION & BOOKING			
Free. Book via nisciencefestival.com			

Come and meet some of our global leaders and research pioneers! This exciting showcase event is an excellent opportunity for you to meet and talk with many of the inspiring researchers at Queen's University.

The sixth volume in The DNA of Innovation series will also be launched at the showcase. Global Leaders, Research Pioneers profiles 29 of our inspiring researchers and their work within the new Global Research Institutes (GRIs) and Pioneer Research Programmes (PRPs) at Queen's.

These academics will have stands at the showcase and copies of the new publication will be available (free) at the event. A few short presentations will also be given from the stage.





FOOD FOR THOUGHT

The Geography of Food and Drink in Northern Ireland

DATE Thursday 16 February	TIME(S) 6PM (90 minutes)
VENUE School of Natural & Built Environment, Queens University, Elmwood Avenue, Belfast BT7 1NN	SUITABILITY 6+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Explore the best of food and drink in Northern Ireland using maps. Following the success of the 2016 Year of Food and Drink, this workshop offers the opportunity to map and explore the geography of the best culinary produce from around NI.

Gather the locations of the best breweries, the best eateries and the best traditional food and favourites of Northern Ireland. Map these locations using a Geographical Information System (GIS). Let's then create a public web map of the best of Northern Ireland.



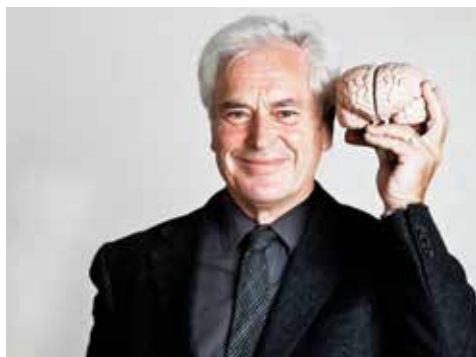
Queen's University
Belfast



tourism
northernireland



Northern Ireland
Year of Food & Drink 2016



MIND & BODY

The Stress Test: How Pressure Can Make You Stronger and Sharper?

DATE Thursday 16 February	TIME(S) 6PM (60 mins)
VENUE Ulster University, 25-51 York St, Belfast BT15 1ED	SUITABILITY 16+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Why is it that some people react to seemingly trivial setbacks with distress, while others power through life-changing tragedies showing barely any emotional upset whatsoever? How do some people shine brilliantly at public speaking when others crumble?

The difference between too much pressure and too little can result in either debilitating stress or enduring demotivation in extreme situations. the right level of challenge and stress can help people to flourish and achieve more than they ever thought possible. In The Stress Test, clinical psychologist and cognitive neuroscientist Professor Ian Robertson, armed with over four decades of research, reveals how we can shape our brain's response to pressure and answers the question: can stress ever be a good thing?



The British
Psychological Society
Northern Ireland Branch



FOOD FOR THOUGHT

What's Your Beef?

DATE Thursday 16 February	TIME(S) 6pm (180 mins)	SUITABILITY 18+
VENUE Taylor & Clay at the Bullitt Hotel, 40a Church Lane, Belfast BT1 4QN		
ADMISSION & BOOKING £44. Book via 02895 900600.		

Enjoy an intimate dining experience at Taylor & Clay. Hear our chef's views on the future of meat and taste the world's first flax-fed Wagyu beef. Sample organic heritage vegetables from David Love Cameron's Walled Garden at Helen's Bay, and watch as our chefs bring the vegetable back to the center of the plate with a little help from our signature Asador Grill.

We have also collaborated with Ulster University ceramics' students to present you with some unique eating vessels from which we will eat both sauce and meat.

BULLITT



FOOD FOR THOUGHT

Intelligent Beer

DATE Thursday 16 February	TIME(S) 7pm (60 mins)	SUITABILITY 18+
VENUE Brewbot, 451 Ormeau Rd, Belfast BT7 3GQ		
ADMISSION & BOOKING £6. Book via nisciencefestival.com		

Taste the world's first beer which has been brewed by artificial intelligence (AI). Can machine learning be used to brew better beer? IntelligentX Brewing Co. claims that it can. Their unique brewing method is controlled by artificial intelligence which changes the recipe to improve itself based on consumer feedback.

Join us as we explore the science behind the process and give you the chance to try a beer which has been created by an algorithm.

THE
**ROYAL
SOCIETY**





FOOD FOR THOUGHT

Irish Whiskey: The Journey from Grain to Glass

DATE Thursday 16 February	TIME(S) 7:30PM (90 mins)
VENUE Bullitt Hotel, 40a Church Lane, Belfast BT1 4QN	SUITABILITY 18+
ADMISSION & BOOKING £30. Book via nisciencefestival.com	

Want to discover the science behind whiskey making? Join Dave Quinn, the Master of Whiskey Science at Middleton Distillery, for a journey through the time-honored tradition of Irish whiskey production. In this fascinating session Dave will reveal how raw materials, fermentation, distillation and maturation contribute to the intricate flavours of whiskey. You will get the opportunity to sample various whiskeys and see if you can identify how the combination of barley, malt and water impacts the texture and how different wood casks can affect the taste.

It takes years to make a great whiskey and whether you are a whiskey enthusiast or passionate about science, you'll be amazed at the scientific process that takes this spirit from grain to glass.



SCIENCE COMMUNICATION

Bright Club Belfast

DATE Thursday 16 February	TIME(S) 8pm (180 mins)
VENUE Black Box, 18-22 Hill St, Belfast BT1 2LA	SUITABILITY 18+
ADMISSION & BOOKING £5. Book via nisciencefestival.com	

BOOM! From the Big Bang to population booms, we'll be exploring explosions of all shapes, sizes and forms. So expect some intellectual pyrotechnics (and possibly some actual ones) where curiosity meets comedy and genius is born.

Bright Club is the thinking person's comedy night, bringing together stand-up comedians and the fascinating minds of people working within Northern Ireland's universities. See what happens when we combine them, on stage, in front of an attractive and inquisitive audience, and within reach of a pint glass.

Compered by Belfast based comedian Colin Murphy (The Blame Game).



SCIENCE COMMUNICATION

Weird Science Cocktail Party Screening

DATE Thursday 16 February	TIME(S) 8:30pm (min 110 mins)
VENUE Strand Arts Centre, 152-154 Holywood Rd, Belfast BT4 1NY	SUITABILITY 18+
ADMISSION & BOOKING £6. Book via nisciencefestival.com	

This is a screening of the classic 80's film with a special host and scientific cocktails! Teen misfits Gary and Wyatt design their ideal woman on a computer and a freak electrical accident brings her to life in the form of the lovely, superhuman Lisa. She dresses Gary and Wyatt in cool clothes, surprises them with a Porsche and helps them stand up to jerks Ian and Max. But, all the while, the boys must hide Lisa's existence from Chet, Wyatt's nightmare of a big brother. Starring: Anthony Michael Hall, Kelly LeBrock, Ilan Mitchell-Smith, Bill Paxton, Suzanne Snyder and Robert Downey Jr.

Dressing up is encouraged for this unique and quirky night!

STRAND
ARTS CENTRE



NATURAL WORLD

Ecological Tales from a Plant Accountant

DATE Thursday 16 February	TIME(S) 6.30PM (60 mins)
VENUE Open University, 110 Victoria Street, Belfast BT1 3GN	SUITABILITY 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Open University 'plant accountant', Dr Julia Cooke, will take you through a unique series of stories about some of the world's most interesting plants. From giant sequoia trees, bigger than the blue whale, to festive mistletoes that are ingenious parasites. Dr Cooke will tease out the ways that plants invest, get returns and make bets in ways that are as extraordinary as they are beautiful.





NATURAL WORLD

Building Tropical Plant Cells in Minecraft

DATE Friday 17 February	TIME(S) 10AM, 11:45AM & 2PM (75 mins)
VENUE Botanic Gardens Bowling Pavilion, College Park, Botanic Ave, Belfast BT7 1L	SUITABILITY 6-14
ADMISSION & BOOKING £3. Book via nisciencefestival.com	

Minecraft is one of the most popular children's games in the world. Children can use this programme to work together and build something original and creative, or a well-known, existing building, exactly to scale. In this workshop, children will get the opportunity to look at exotic and tropical plants of the fantastic Tropical Ravine. They will look in more detail at how these plants are structured and begin to build the cells of the plants in Minecraft, using a range of blocks and materials.

Children should bring their own iPads to the workshop with the latest edition of the app Minecraft Pocket Edition downloaded. A limited number of iPads will also be available for use.



Belfast
City Council



NATURAL WORLD

Bugs, Birds, Beasts and You

DATE Friday 17 February	TIME(S) 10:30AM (45 mins)
VENUE Ulster Museum, Botanic Gardens, Belfast BT9 5AB	SUITABILITY 6+
ADMISSION & BOOKING £3 or £10 for family of four to include at least one adult. Book via nisciencefestival.com	

Can bugs, birds and beasts really be made from the same stuff as you and I?

Every living thing is made from chemical elements, but are these elements different in bugs and beasts, or birds and people?

Join Karl from Ecomantella with his wide range of live animals, including this beautiful Spectacled Owl, to find out if they are, in any way, the same as you and I.

Links with the 'Elements - from Actinium to Zirconium' exhibition.





MIND AND BODY

Roald Dahl's Marvellous Medicine

DATE Friday 17 February	TIME(S) 12noon (60 mins)
VENUE Black Box, Hill Street, Belfast	SUITABILITY 8+
ADMISSION & BOOKING £6/£3. Book via nisciencefestival.com	

Roald Dahl not only wrote George's Marvellous Medicine, he came up with some marvellous medicine of his own! Join Dahl's doctor, Prof Tom Solomon, who describes Dahl's amazing medical inventions, and uses Dahl's stories to explain how the body works, what can go wrong and how we can fix it. You'll play the Battle of the Brain Bugs, learn how to make your own marvellous medicine and produce Gobblefunk.



ENGINEERING AND ROBOTICS

Artbotics: Curious Electronic Eyes

DATE Friday 17 February	TIME(S) 1PM & 3PM (60 mins)
VENUE Foyle Theatre, North West Regional College, 78-80 Strand Road, Derry/Londonderry BT48 7AL	SUITABILITY 6+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Have you ever wondered how robots 'learn to see'? Come along and join The Open University for a series of interactive activities on robotics: how science and art blend together to help robots see and understand the surrounding world. Exploring Computer Vision (CV) trickery, Dr Armando Marino of The Open University will challenge the audience to 'see' what the robot 'sees'.





TECH AND DIGITAL

Going Potty with Point Clouds

DATE Friday 17 February	TIME(S) 12:30PM-4PM
VENUE Room OG033, Queens University, Elmwood Building, Elmwood Avenue, Belfast, BT7 1NN	SUITABILITY All ages
ADMISSION & BOOKING Free, drop-in event.	

Archaeology uses artefacts from the past to help discover the world of our ancestors. Technology is now being used to help analyse these discoveries. In this interactive demonstration event, Archaeology at Queen's, in partnership with FabLab Belfast, will take participants through a one-stop tour of the digital analysis and recording of a prehistoric pot found on Rathlin Island.



MIND & BODY

Zombie Science: Worst Case Scenario

DATE Friday 17 February	TIME(S) 12pm-1pm & 3pm-4pm
VENUE Playhouse Theatre, 5-7 Artillery Street, Derry/Londonderry BT48 6DR	SUITABILITY 13+
ADMISSION & BOOKING £6 / £3 Concession	

See page 17 for full listing.



NATURAL WORLD

To Stone Age Tools & Paint: A Peek into Life in the Pleistocene

DATE Friday 17 February	TIME(S) 1PM-3PM
VENUE Biogeography Laboratory, Queen's University, Elmwood Avenue, Belfast BT9 6AZ	SUITABILITY All ages
ADMISSION & BOOKING Free, drop-in event. No booking required.	

Here's your chance to see, touch and discuss fossil bones of extinct megafauna, such as woolly mammoths and rhinos, as well as comparing casts of skulls of some of our closest relatives (gorillas and chimpanzees) and early hominins, such as Australopithecines, Neanderthals and early modern humans. Join us and travel thousands of years back in time and have a go at using stone tools like those of our hunter-gatherer ancestors.





ART AND SCIENCE

The Emergence of E-textiles

DATE	Friday 17 February	TIME(S)	1PM
VENUE	The MAC, Exchange Street, Belfast	SUITABILITY	14+
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Imagine a piece of fabric that can be tapped or swiped just like you would a touch screen? Or if sensors woven into the cover of your chair told you when you were slouching? Electronic textiles are where computer science, electrical engineering, textiles and design all come together. Dr Rebecca Stewart, of Queen Mary University, London will discuss its rise and how it could change the way we interact with the world around us, including during live performance.

This talk was awarded the annual Daphne Oram Award Lecture by the British Science Association. The British Science Association's Award Lectures on tour is supported by 3M.



SCIENCE IN SOCIETY

Fun with Ancient Coins

DATE	Friday 17 February	TIME(S)	3:15PM (45 mins)
VENUE	Archaeology & Palaeoecology Centre, 42 Fitzwilliam Street, Room G43, Queens University, Belfast BT9 6AX	SUITABILITY	6-14
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Finding ancient coins in an archaeological excavation can be very useful in terms of learning about a site. This interactive workshop introduces children to the history of coins and coinage, explaining what we can learn from the coins themselves and what they tell us about the people who made and used them. It includes some game and quiz-style activities.





TECH AND DIGITAL

Future17: Teen Hackathon

DATE	Saturday 18 February	TIME(S)	9:30AM-4:30PM
VENUE	Titanic Belfast, 1 Olympic Way, Titanic Quarter, Belfast BT3 9EP	SUITABILITY	13-18
ADMISSION & BOOKING			
£5. Book via nisciencefestival.com			

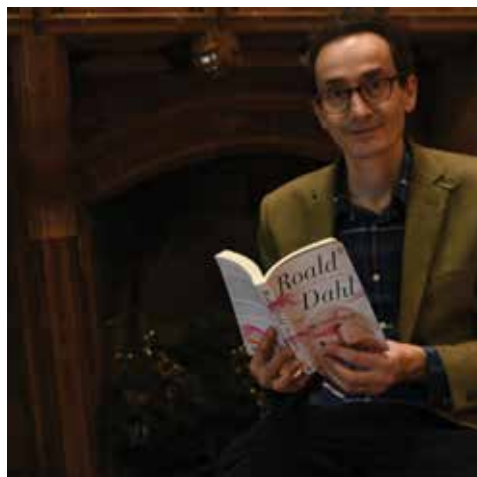
Future17 is a hackathon and tech conference designed for teens, by teens. Run exclusively by a group of three teenagers, attendees will have the chance to get to grips with coding and will be tasked with designing an app around a key theme, such as education. At the end, the most innovative projects will receive spot prizes and a share of £1,000. Even if you've never coded before but are keen to learn, don't worry, as expert coding mentors will be on hand to assist you! In addition, attendees will also have a chance to hear from some of the youngest leaders in the tech world, including:

- Ann Makosinski, 19: Google Science Fair finalist after inventing torch powered by human hand-heat
- Peter McAree: Student Software Engineer at Kainos and Earn As You Learn Scheme alumnus

Plus several more fantastic speakers, who will be announced in the lead-up to the event!

[kainos](http://kainos.com)

MCS GROUP
INTELLIGENT RECRUITMENT SOLUTIONS

MIND AND BODY

An Unexpected Evening with Roald Dahl's Doctor

DATE	Friday 17 February	TIME(S)	8PM
VENUE	Black Box, Belfast	SUITABILITY	18+
ADMISSION & BOOKING			
£12 (includes complimentary cocktail)			

Roald Dahl loved nothing more than a cosy night with friends, family and a decent bottle of Bordeaux. Join Dahl's doctor, Professor Tom Solomon for an intimate evening discussing the man, his literature, and the untold story of his marvellous medicine. Hear why Dahl invented new medical treatments which benefitted the whole world. And drink to his memory with a complimentary William and Mary cocktail or jar of Froboscottle.



TECH AND DIGITAL

IM HAPPY - Technology Family Fun Day

DATE	Saturday 18 February	TIME(S)	10AM-5PM
VENUE	Diamond Shopping Centre, Bridge St, Coleraine BT52 1DT	SUITABILITY	All ages
ADMISSION & BOOKING			
Free, drop-in event. For further information see imhappyni.com			

One-day fun-filled, creative technology event in Coleraine. This will include workshops, demonstrations and guest speakers.

- 30 minutes Technology Robotics workshops
- Demonstrations using Meccanoid, Drones, Oculus Rift and Spheros.





ART AND SCIENCE

Understanding White Balance

DATE	Saturday 18 February	TIME(S)	10AM (120 mins)
VENUE	Belfast Exposed, 23 Donegal Street, Belfast, BT12 2FF	SUITABILITY	14+
ADMISSION & BOOKING £20. Book via mervyn@belfastexposed.org			

Photography, as a creative art form, and science go hand in hand. This workshop looks at the science of Kelvin in your photography, better known as "White Balance". We look at the History of Lord Kelvin and how we use his temperature scale in photography, more so now in modern digital photography.

Participants will gain knowledge in how to set the correct White Balance using their Kelvin and White Balance settings. We will undertake different photography set-ups, from studio to location daylight and mixed lighting sources, which can be very difficult for the photographer to master. The workshop will enable you to understand the science behind White Balance and improve your photography.

**BELFAST
EXPOSED**

NATURAL WORLD

Park Life Saturday Club

DATE	Saturday 18 February	TIME(S)	10AM (90 mins)
VENUE	Fullerton Park Pavillion, Glenburn Road, Dunmurry, Belfast BT17 9BJ	SUITABILITY	7-12
ADMISSION & BOOKING Free. Book via parklife@belfastcity.gov.uk			

Come along to our Saturday club and "heart" your park. Find out all about your health and heart by playing games with a natural twist and showing your park how much you love it!

Saturday clubs are for children aged 7 to 12. Younger children are welcome but must be accompanied by an adult.



**Belfast
City Council**



FOOD FOR THOUGHT

Sipp up in a Brewery

DATE	TIME(S)
Saturday 18 February	2PM (4-5 hours)
VENUE	SUITABILITY
Derry-Londonderry City Centre	18+
ADMISSION & BOOKING	
£50. Book via nisciencefestival.com	

Sipp Up in a Brewery is a unique walking and beer sampling tour, which showcases the incredible science behind brewing beer in some of the North West's very own breweries.

Beginning at the Grand Central Bar (Strand Road), we will begin our tour over a light lunch while sampling from the Dopey Dick Brewing Company's range. Following lunch, we will visit the Northbound Brewery and Walled City Brewery, before finishing up at the Guildhall Taphouse with music and sustenance. At each of these locations, we will meet brew masters, learn some of the secrets of their craft and sample their all-important products.



SCIENCE COMMUNICATION

Little Legends

DATE	TIME(S)
Saturday 18 February	11AM (60 mins)
VENUE	SUITABILITY
Easons book store, Foyle Side Shopping Centre, Orchard St, Londonderry BT48 6XY	4-10
ADMISSION & BOOKING	
Free. Drop in event.	

Little Legends Reading Rooms is an innovative, shared-reading programme, based in the community, which uses poetry and prose to engage with children and young people to develop a love of reading.

For this special event, Little Legends will deliver a customised programme of science related reading activities to children and young people in partnership with Foyle Side and Eason.





TECH AND DIGITAL

Digital Creativity

DATE	Saturday 18 February	TIME(S)	11AM-4PM
VENUE	The Gasyard Centre, 128 Lecky Rd, Londonderry BT48 6NP	SUITABILITY	All ages
ADMISSION & BOOKING Free, drop-in workshops.			

Are you up for a challenge? Join us and get hands-on with technology and software including iPads, Minecraft, Raspberry Pi's, Makey Makeys, Pokemon Go and Fifa 17.

Learn to code our robotic arm, make your own musical masterpiece using bananas, take part in our Minecraft build and Fifa 17 challenges. We will have a wide range of stimulating and hands-on activities, suitable for all ages.

This is a fun event for all the family to get involved in, learning key STEM subjects whilst having lots of fun.

STEM Aware | **IOPI** Institute of Physics
in Ireland



TECH AND DIGITAL

Future Artist-Makers: Instrument Making Workshop

DATE	Saturday 18 February	TIME(S)	11AM-1:30PM (90 mins)
VENUE	Nerve Visual Gallery, Building Eighty81, Ebrington, Derry/Londonderry BT47 6FA	SUITABILITY	8-12
ADMISSION & BOOKING Free. Book via k.friel@nervecentre.org or 028 7126 0562			

Join artist instrument builder Ed Devane in a hands-on workshop and leave with three different musical instruments: a Hexbourine tambourine, a simple horn instrument called the Balloony Tube and a Tik-Tak-Glo drum that has an LED that lights every time the drum head is hit. Participants will be introduced to the world of music, instrument building, simple electronics, geometry and material manipulation using specially laser cut designs with a STEAM education twist.



Creative
Europe





ART AND SCIENCE

The Science of Photography

DATE	Saturday 18 February	TIME(S)	10:30AM
VENUE	Titanic Quarter	SUITABILITY	14+
ADMISSION & BOOKING £20. To book your space please contact maeve.curran@titanic-foundation.org			

Become a Titanic inspired photographer for the day, learning all about the science behind photography. Photography is the physics of light: light temperature / colour (developed by Lord Kelvin who was born in Belfast); camera obscura; and the science of time and exposure. Visitors will also get the opportunity to explore Titanic Quarter's industrial and maritime heritage. On the interactive tour you will be transported around the quarter in style on the Wee Tram. Stops include the historic Slipways, Titanic's Dock & Pump-House, Samson & Goliath cranes. Not forgetting the science of time and how it can freeze and capture an instant that can be a unforgettable memory. Includes lunch stop at Titanic's Dock and Pump-House.



NATURAL WORLD

Save Our Red Squirrel - Plant a Tree

DATE	Saturday 18 February	TIME(S)	11AM
VENUE	The Lookout, Mount Stewart, Portaferry Rd, Newtownards BT22 2AD	SUITABILITY	All ages
ADMISSION & BOOKING Free. Booking essential via 028 4278 8387. Bring lunch, suitable outdoor clothing & footwear.			

Our native red squirrel is under attack from disease, the loss of woodland and the introduction of its larger cousin, the grey squirrel. Over the last 100 years, populations of red squirrel have dropped so severely that they are now classified as Near Threatened in Northern Ireland. One way which we can help this beautiful creature to survive is by planting more of our native trees. Join our ranger team for a day of tree planting to help save the native red squirrel – you never know, you might even catch a glimpse of one! Please note: Physical work is involved in this event. Bring lunch. Suitable clothing and footwear is essential.





MIND & BODY

Dr Adam Rutherford & Guests

Microbes: The Good, The Bad & The Ugly

DATE Saturday 18 February	TIME(S) 12:30PM (90 mins)	
VENUE Lecture Theatre LT1, Medical Biology Centre, School of Biological Sciences, Queen's University Belfast, 97 Lisburn Road, Belfast, BT9 7BL	SUITABILITY 14+	
ADMISSION & BOOKING £3. Book via nisciencefestival.com		

Microbes are the hidden custodians of Earth: controlling the biosphere, removing our waste and affecting our lives in countless ways. Microbial diseases have cut swathes through human populations, yet microbes also drive socioeconomic development, and more benign hitchhikers have left a genetic trail on perilous journeys taken thousands of years ago. Microbiologists from Queens University's School of Biological Sciences will join Dr Adam Rutherford to discuss how microbes change our world.

Adam has presented award winning programmes for the BBC including the flagship programs Inside Science, The Cell and Horizon. His book, Creation, on the origin of life and synthetic biology, was shortlisted for the Wellcome Trust prize. His latest bestseller is A Brief History of Everyone Who Has Ever Lived.





NATURAL WORLD

Animal Bones from Archaeological Sites

DATE Saturday 18 February	TIME(S) 11AM & 12PM (60 mins)
VENUE Room G43, Archaeology and Palaeoecology Building, Fitzwilliam St. Belfast	SUITABILITY 14+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Animal bones are one of the most common artifacts found during archaeological excavations. For the most part, they are predominantly comprised of bones which have been discarded after eating meat.

This workshop will teach you how to identify the most common bones found during Irish excavations. Participants will examine bones from actual excavations and, by using modern comparative skeletal material, learn how to identify them. This information allows us to reconstruct the meat diets of our ancestors.



SCIENCE IN SOCIETY

Dr Megaphone's Irish Jaunt

DATE Saturday 18 February	TIME(S) 12PM & 3PM (60 mins)
VENUE Gasyard Centre, 128 Lecky Rd, Londonderry BT48 6NP	SUITABILITY All ages
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Join us for a fast-paced event which uses a unique blend of lecture, comedy, live music and demonstration to present the history of science and technology across Ireland. Introduced by Dr. Megaphone (Dr Ian Johnston), this event will feature music by Alan McClure and demonstrations by Sandy.





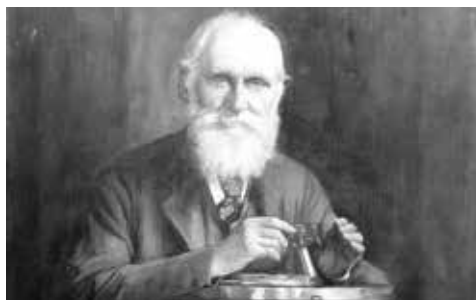
MIND & BODY

Know Your Enemy: Disease-Focused Research at Queen's University

DATE Saturday 18 February	TIME(S) 1PM-5PM
VENUE Centre for Experimental Medicine, Wellcome Wolfson Building, 97 Lisburn Road, Belfast BT9 7BL	SUITABILITY All ages
ADMISSION & BOOKING Free, drop-in event.	

The Centre for Experimental Medicine at Queen's University is a new, state of the art research facility, which accommodates over 200 research staff. These researchers are committed to improving the lives of patients and focus their efforts around four main themes: eye disease, diabetes and vascular disease, infectious and respiratory disease.

We will host a showcase event which will allow visitors to gain first-hand insights into disease-focused research in our centre. Several strands of research will be highlighted in the form of short talks, interactive stands and hands-on stalls. Tours of the building will allow visitors to appreciate the commitment of Queen's University to disease-focused, patient-centred research.



MATHS AND PHYSICS

The Thomsons of Belfast

Mathematics, Engineering and Invention in the Family of Lord Kelvin

DATE	Saturday 18 February	TIME(S)	2:15PM (135 mins)
VENUE	The Old Museum Building, 7 College Square North, Belfast BT1 6AR	SUITABILITY	18+
ADMISSION & BOOKING			
Free. Book via nisciencefestival.com			

William Thomson (Lord Kelvin), born in Belfast, was one of the most famous natural philosophers of the Victorian age, contributing to thermodynamics, electricity and magnetism, and developing inventions and technological applications. William's older brother James, was Professor of Engineering at Queen's College Belfast before joining William at Glasgow University, and their father, James Thomson Snr, taught mathematics at the Belfast Academical Institution before moving to Glasgow as the Chair of Mathematics, and writing popular textbooks on mathematics.

Three experts on the Thomsons (Professor Crosbie Smith, Professor Andrew Whitaker and Dr Mark McCartney) will consider their lives and contributions, placing their work in the context of both Victorian Britain and Victorian Belfast.

Please note: This venue has limited access for those with physical mobility restrictions or wheelchair users.



BRITISH SOCIETY
FOR THE HISTORY
OF MATHEMATICS



MIND & BODY

Cracking the Code: The Genetics of Superheroes

DATE	Saturday 18 February	TIME(S)	1PM (60 mins)
VENUE	Titanic Belfast, 1 Olympic Way, Titanic Quarter, Belfast BT3 9EP	SUITABILITY	12+
ADMISSION & BOOKING			
£6.50 or £20 per family (2 adults, 2 children)			

TV presenter and scientist, Simon Watt, is returning to Titanic Belfast bringing his 'Cracking The Code: The Genetics of Superheroes' Roadshow!

Comic books are filled with mutants; heroes and villains alike, from Wolverine to Magneto, whose special abilities are genetic in their origin. Simon looks into what are real mutants like, looking at topics including genetics, mutation, DNA, and mRNA and poses the question, could we one day use genetics to make us superhuman?

Perfect for families who love science and superheroes! For more information and to book tickets, visit www.titanicbelfast.com





SCIENCE IN SOCIETY

The Celts with Prof. Alice Roberts

DATE	Saturday 18 February	TIME(S)	3PM (60 mins)
VENUE	Ulster Museum, Botanic Gardens, Belfast BT9 5AB	SUITABILITY	14+
ADMISSION & BOOKING £12/£10 concession. Book via nisciencefestival.com			

Join Professor Alice Roberts as she sets sail on an adventure that takes us right across Europe, from its wild, western Atlantic coasts to its eastern edge and beyond. It's also a journey deep into the past, into mysterious prehistory, as she goes in search of the Iron Age ancestors we call the Celts - their lives, their art, their technology, their knowledge and beliefs. She explores a world where battles were fought with the mighty Mediterranean empires of Greece and Rome, where warriors were worshipped as gods, and where princes and princesses were buried with dazzling gold treasure. And these ancestors may have lived over two millennia ago, but they still help us to construct our identities today.



ART & SCIENCE

King Kong Company

DATE	Saturday 18 February	TIME(S)	8:30PM-11:30PM
VENUE	Black Box, 18-22 Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING £12			

The NI Science Festival, in association with Sunflowerfest, presents a night of mind-bending visuals into parallel universes and genre warping electronic music with the critically acclaimed, Waterford Institute of Technology alumni, King Kong Company!

King Kong Company was conceived when two college friends, Alan Aylward and Mark White began experimenting with dance music using effect laden guitars and drum machines. Critics and fans have been raving about King Kong Company in blogs, in tweets and in the fields of Ireland's biggest festivals. The seven piece, who sound more like a DJ than a band, have been described as "Brilliant" (TheSkinny.co.uk), "Incredible" (State.ie) and, not to overuse the word, "Brilliant" by Goldenplec.com. Join us for what's sure to be one of the best gigs of NISF17!

**SUN
FLOWER
FEST**

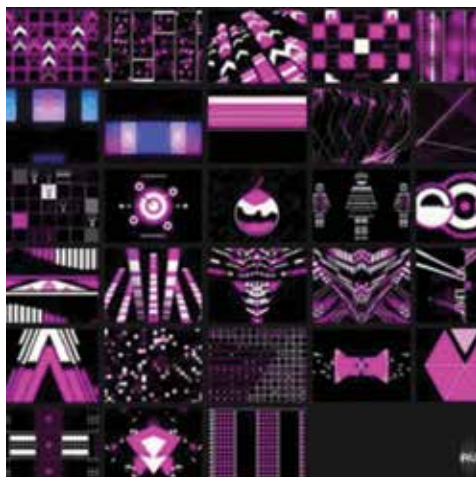


TECH & DIGITAL

Launch Pad Workshops

DATE Saturday 18 February		TIME(S) 11AM -12.30PM (8-11yrs) 1.30-3PM (12-16yrs)
VENUE Black Box, Hill Street, Belfast		SUITABILITY 8-16
ADMISSION & BOOKING £6. Book via nisciencefestival.com		

Want to make and remix music? If you love electronic music, you'll love Launch Pad music workshop! Professional musicians from Ossia School of Music will help you create music instantly by combining beats, basslines, melodies, vocals and FX loops. The pads are synchronised so you'll always be locked into the beat. The DJ-style FX helps you make every tune unique, with options on iPad to expand your boundaries with enhanced Performance FX. At the end of the workshop you will be able to share your own music composition and it can be captured so that you can download digitally afterwards.



ART & SCIENCE

VJ Workshop

DATE Saturday 18 February	TIME(S) 3:30-5PM
VENUE Black Box, Hill Street, Belfast	SUITABILITY 12-16
ADMISSION & BOOKING Adm £6 Booking via nisciencefestival.com	

At the crossroads between DJing, live cinema and the visual arts, VJing is a truly 21st century art form. Visual Jockeys have embraced technology's development of this media art, crafting live performances using interactive video to bring about a heightened experience of music. This digital workshop, developed by Ossia School of Music, is for people seeking to capture a comprehensive first glance at the art of VJing!



NATURAL WORLD

The Dating Game

DATE	Saturday 18 February		TIME(S)	2PM (90 mins)
VENUE	Department of Archaeology, Queen's University, 42 Fitzwilliam Street, Belfast BT9 6AW		SUITABILITY	16+
ADMISSION & BOOKING				
Free. Book via nisciencefestival.com				

Radiocarbon dating is a technique used by archaeologists and geoscientists to determine the approximate age of organic materials like wood and bones.

This event will give you a brief introduction to how radiocarbon dating works through a short lecture, which is followed by a tour of the 14CHRONO Centre. This Centre, Queen's University's Accelerated Mass Spectrometry (AMS) radiocarbon dating facility, is the only one of its kind on the island of Ireland.



Queen's University
Belfast

SPACE

Chelyabinsk Day: Meet the Meteorites

DATE	Saturday 18 February		TIME(S)	1PM-4:30PM
VENUE	Ulster Museum, Botanic Gardens, Belfast BT9 5AB		SUITABILITY	All ages
ADMISSION & BOOKING Free, drop-in event. No booking required.				

To mark the fourth anniversary of the spectacular fall of the Russian meteorite known as the Chelyabinsk meteor, join us in the Elements gallery, on the Museum's third floor, to see and handle some of these amazing pieces of space debris.

Meet Dr. Mike Simms, the Museum's meteorite expert, find out why these rocks are so rare, and why a 10,000 ton rock from space exploded with as much energy as 460,000 tons of TNT!



Ulster Museum
explore/engage/enjoy



NATURAL WORLD

The Wonders of our Natural World

DATE	Sat 18 & Sun 19 Feb	TIME(S)	10AM-5PM
VENUE	Exploris Aquarium, The Rope Walk, Castle Street, Portaferry BT22 1NZ	SUITABILITY	All ages
ADMISSION & BOOKING Included in general admission			

To celebrate NI Science Festival 2017, Exploris is hosting a series of events and activities to engage and captivate our visitors on The Natural World! Please check our website for full information on admission costs, times and booking requirements for individual events/activities

Microscopy Workshop

Discover the microscopic beasts in our precious seawater and get up close and personal with planktonic predators, while learning just why our water is the colour it is when compared to tropical seas.

Marine Experiments

Check out how mussels filter food from the passing water and how plastic pollution is affecting Strangford Lough.



Talks on Animal Adaptations

There will be several talks around the unique environmental adaptations of different groups of animals to ensure their survival, including: reptiles, birds (raptor group), amphibians, fish, invertebrates and mammals.

Arts & Crafts

Get crafty and make your own marine mask or wooden spoon animal.

Budding Marine Biologists and Zoologists Dissection Demonstration*

Enjoy a guided tour, touch pool demonstration and reptile display with our aquarists while getting up close and personal with our natural collections. You could even experience a live dissection of a squid or a fish!

The Sea at Night*

A guided tour of our native and tropical displays, including snippets of natural world videos, followed by a reptile encounter. The tour is followed by a lecture on the Natural World and concludes with a light supper in the restaurant.

*Spaces for these events are limited so booking is essential.



NATURAL WORLD

Exploring The Depths

DATE	Sunday 19 February	TIME(S)	10AM (60 mins)
VENUE	Ocean Exploration Centre, Titanic Belfast, 1 Olympic Way, Titanic Quarter, Belfast BT3 9EP	SUITABILITY	8-14 years & parents
ADMISSION & BOOKING	£5. Book via titanicbelfast.com/nisf		

The Exploring the Depths workshop allows you to dive deep into the ocean to uncover hidden shipwrecks and discover the world of modern ocean exploration. Taking place in the Ocean Exploration Centre at Titanic Belfast, it provides a unique interactive learning environment. Discover the zones of the ocean along with some of the specialised creatures that live there; get up close and personal with actual ocean exploration technology; fly through the underwater landscape off the North coast of Ireland using Titanic Belfast's unique simulated environment to uncover shipwrecks and our extraordinary hidden landscapes, and investigate some marine samples using a high definition video microscope.



FOOD FOR THOUGHT

Food Glorious Food!

DATE	Sunday 19 February	TIME(S)	11AM-3PM
VENUE	Giant Atrium and Bistro 401 at Titanic Belfast	SUITABILITY	All ages
ADMISSION & BOOKING	Free, drop-in activity in Atrium, Bistro 401 prices vary. Booking not required.		

Experience food like never before! Stimulate your senses, test your taste buds and expect the unexpected.

Titanic Belfast will take everyday ingredients and dishes and let you experience them like never before with free interactive demonstrations in its giant atrium. If you like what you see, unique and interactive dishes will be served in Bistro 401 throughout the day.





NATURAL WORLD

Ugly Animals Roadshow

DATE	Sunday 19 February	TIME(S)	12PM & 3PM (60 mins)
VENUE	Playhouse Theatre, 5-7 Artillery St, Londonderry BT48 6RG	SUITABILITY	8+
ADMISSION & BOOKING £6 / £3 concession. Book via nisciencefestival.com			

Back by popular demand, Simon Watt returns to the NI Science Festival with his Ugly Animals Roadshow! Suitable for all the family, this promises to be an entertaining look at conservation from an unusual perspective.

Why should the panda get all the praise? The Ugly Animal Preservation Society is dedicated to raising the profile of the world's most aesthetically challenged endangered species. Join biologist and presenter Simon Watt for a performance that celebrates and explores the incredible biology of the animal kingdom's most monstrous, featuring videos, demonstrations and lots and lots of audience participation.



SPACE

My Place in Space

DATE	Sunday 19 February	TIME(S)	1:30PM (60 Mins)
VENUE	Playhouse, 5-7 Artillery Street, Londonderry, BT48 6RG	SUITABILITY	All ages
ADMISSION & BOOKING £6 / £3 concession. Book via nisciencefestival.com			

How was our Solar System made? How do we smash an atom? Did you know that we are all made from star dust? Exploring the story of our place in space, Dr Niamh Shaw merges astrophysics with particle physics in a highly interactive and fun event aimed at all the family.

You are sure to learn at least one new thing about where you are in space...no matter how old you think you are.

My Place in Space brings new and engaging ways of communicating science and space themes. The show is aimed at family audiences of all ages and levels of STEM knowledge.



NATURAL WORLD

Dinosaurs

How they looked, how they lived, and how we bring them back to life!

DATE Sunday 19 February	TIME(S) 12:30PM, 2PM & 3:30PM (30 mins)
VENUE Ulster Museum, Botanic Gardens, Belfast BT9 5AB	SUITABILITY 6-14
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Today's biologists studying modern animals can observe them as they live and breathe. Palaeontologists studying fossils only have pieces of bone and shell to work from. Have you ever wondered how can they turn those fossils back into a living, breathing, animal?

Dr Paddy Orr, Ireland's dinosaur expert, will talk about how palaeontologists use different types of information provided by fossils to reconstruct the lost world of the dinosaurs - even down to the colours of the feathers which many species had!



MATHS AND PHYSICS

How to Dismantle a Straight Line

DATE Sunday 19 February	TIME(S) 1pm (60mins)
VENUE Black Box, Hill Street, Belfast	SUITABILITY 14+
ADMISSION & BOOKING £3. Book via nisciencefestival.com	

In the 17th Century the English mathematician John Wallis gave some meaning to negative numbers by inventing the number line. These days the number line and its cousins, notations that map numbers onto space such as tape measures, rulers and graphs, the petrol gauge in your car – are everywhere.

We don't wonder: Is it natural? Is it cultural? Or worse – is it accurate? Musician Colin Reid reckons there's more going on than meets the eye.



ENGINEERING AND ROBOTICS

Future Artist-Makers: Paper Plane Making Workshop

DATE Sunday 19 February	TIME(S) 1-4PM	
VENUE Nerve Visual Gallery, Building Eighty81, Ebrington, Derry/Londonderry BT47 6FA		SUITABILITY All ages
ADMISSION & BOOKING Free, drop-in event.		

Everyone knows how to build a paper plane, right? This drop-in, paper plane making workshop is a fantastic introduction to aeromodelling and the concepts of flight. Come along and get creative, try new plane designs and compete for the prizes for the paper planes which travels furthest.



MIND AND BODY

Bones and Burials: People in the Past

DATE Sunday 19 February	TIME(S) 2PM (90 mins)	
VENUE School of Natural and Built Environment, Queen's University, Belfast BT9 6AY		SUITABILITY All ages
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Archaeologists often encounter human skeletons on excavations. A huge amount of information can be obtained about the people who lived in the past from skeletons – what diseases they suffered from, what they ate and sometimes even why they died. From their bones it is possible to tell if a skeleton is from a man or a woman, what age they died at and how tall they were. In the session participants will make a skeleton jigsaw and have the opportunity to try some of the methods used by osteoarchaeologists. They will also have the chance to see the effects of diseases, including leprosy and tuberculosis, on bones and learn about what happens if you don't brush your teeth!





MIND & BODY

Alice Roberts: The Incredible Unlikelihood of Being

DATE Sunday 19 February	TIME(S) 1PM (60 mins)
VENUE Whitla Hall, Queens University, University Road, Belfast BT7 1NN	SUITABILITY 14+
ADMISSION & BOOKING £12/£10 concession. Book via nisciencefestival.com	

Join Professor Alice Roberts as she embarks on a journey exploring development from a single egg into a complex body, revealing how our embryos contain echoes of our evolutionary past.

It's the closest we ever come, as humans, to a transformation as profound as that from a caterpillar into a butterfly. In the first two months of our existence, each of us changed from a single egg to a flat disc, to a hollow tube, to a little creature with stumpy arms and legs, to something that looked recognisably human. And in the course of that embryological development, there were echoes of earlier stages of evolution, harking back to very ancient ancestors - ancestors we share with living insects, fish, amphibians and reptiles.

The story of how a human body develops, from a single cell to a complex organism, is - Alice Roberts argues - the most fascinating narrative that science has to offer us.



SPACE

Helen Sharman – Britain's First Astronaut

DATE	TIME(S)
Sunday 19 February	4PM (60 mins)
VENUE	SUITABILITY
Whitla Hall, Queens University, University Road, Belfast BT7 1NN	All ages
ADMISSION & BOOKING	
£14/£10 concession. Book via nisciencefestival.com	

Join scientist and astronaut Helen Sharman (OBE) for this inspirational talk, as she recounts her fascinating first hand experiences of journeying into space.

Helen was working as a chemist for a chocolate company when she heard a radio advert broadcasting a simple request: "Astronaut wanted, no experience necessary." After 18 months of intensive training in Star City near Moscow, Helen became the first British person in space in May 1991 when she launched on a Soyuz spacecraft to spend 8 days orbiting the Earth, most of that time on the MIR Space Station.

Helen will share insider knowledge of her mission to MIR, describing the meticulous training and preparation, the launch and landing, how weightlessness feels, what it is like living and working in space, the teamwork and team spirit, and adjusting to life back on Earth afterwards.

© Photo: National Waterfront Museum Swansea



TECH AND DIGITAL

Science & Sonic Arts

DATE

Sunday 19 February

VENUE

Sonic Arts Research Centre, Cloreen Park,
Malone Road, Belfast BT9 5HN

The Science of Singing

Suitability: 14+

Time: 2PM-3PM

Admission: £6 (£3 concession, young children free)

Why are some vowels easier to sing than others?

Why take such a deep breath before singing?

What are "head voice" and "chest voice"? How

do singers project their voices over loud musical

instruments? What is "projection" anyway? Dr

Trevor Agus will present some of the science behind our singing voices with demonstrations and practical advice from top mezzosoprano and singing teacher, Jenny Bourke.

Sonic Funfair

Suitability: All ages, Families

Time: 3PM

Admission: Free, drop-in event

Roll up, roll up. Drop in to the Sonic Funfair to experience audio-related sights and sounds. Test how well you can use your muscles to control sound. Make live sound effects for film in our Foley studio. Be amazed by our auditory illusionists. Play with sound, and perhaps learning something about it too.





Spatial Music Concert

Suitability: 14+

Time: 3:30PM-4:30PM (60 mins)

Admission: £2

The Sonic Lab boasts 48 loudspeakers positioned all around you: left, right, front, back, above you and even underneath you! Come and see what composers can do with such a sound system, as we present some of the pieces that have been written specially for this unique infrastructure over the last ten years. NB. Please avoid wearing heels to this event as the floor is overlaid with a metal grid!

Open-jack night

Suitability: 14+

Time: 5:30-7PM (90 mins)

Admission: Free

Great recordings can sound even better through great loudspeakers. Would you like to hear your favourite music through an excellent sound system? Bring your tracks (preferably on a CD) to hear them in the clarity of our Sonic Lab. Hear your own music differently and share in the musical tastes of others, discovering the difference a sound system can make.

In Limbo

Suitability: 18+

Time: 7:30PM (90 mins)

Admission: £5. Book via nisciencefestival.com

What if the Internet could dream of itself?

In Limbo is an inner journey into the Internet, as if there was nothing left but the planetary network, dreaming of itself. It is a philosophical tale where the narrator awakens in the limbo of our global interconnected memory, and meets its strange life, inhabitants and founding fathers (Ray Kurzweil, Gordon Bell, Brewster Kahle, Laurie Frick, Cathal Gurrin, etc).

While drifting into this giant memory, exploring its dreams and fears, the narrator begins chasing the essence of nostalgia. Are we building a new cathedral, for a new civilization, or the biggest cemetery of our history? A showcase of the SARC Sonic Labs amazing capabilities will precede the screening.

In association with Second Chance Cinema.



NATURAL WORLD

Winter Tree Trail in Botanic Gardens

DATE	Monday 20 February	TIME(S)	11AM (90 mins)
VENUE	Botanic Gardens Bowling Pavilion, College Park, Botanic Avenue, Belfast	SUITABILITY	16+
ADMISSION & BOOKING £3. Book via nisciencefestival.com			

A chance to visit some of the 500+ trees in the Botanic Gardens and learn to recognize them in their winter clothes. A guided walk through the tree collections starting with the conifers – the sequoias, the pines, the recently discovered Wallemia and many others from around the world. We will then look at a number of deciduous trees that can be identified from their winter twigs, followed by a short workshop in the warmth of the Bowling Pavilion where we can look at specimens collected and make use of tree identification books.



ENGINEERING AND ROBOTICS

Future Transport: Who's in the Driving Seat?

DATE	Monday 20 February	TIME(S)	6:30 PM (60 mins)
VENUE	The MAC, 10 Exchange Street, Belfast, BT1 2LS	SUITABILITY	All ages
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

The development of the internet and simplified interaction it brings through multi-channel digital communication should have presaged a reduction in the need for physical movements. The reality however is that distances travelled by both people and goods continue to increase year on year and hence the demand for transport innovation grows ever stronger. Constraints from an over-riding requirement for safety, coupled with rising costs of energy and restrictions on emissions has led to a number of new vehicle technologies gaining prominence. This presentation builds on these to look into the future for transport and attempts to predict what we might be seeing as normal by the middle of this century.





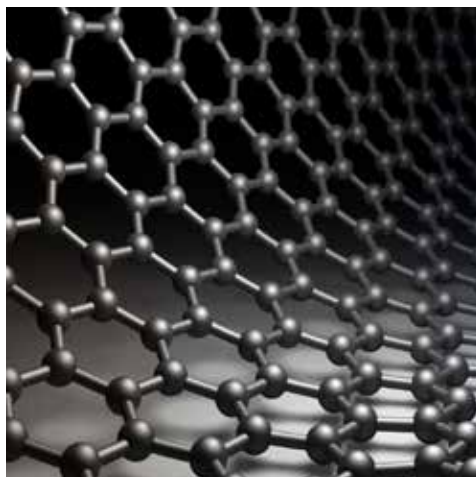
SPACE

Stargazing at Queen's

DATE Monday 20 February	TIME(S) 6:30PM	SUITABILITY All ages
VENUE Lanyon Building, Queen's University, Belfast		
ADMISSION & BOOKING Free drop-in event (weather dependant). Visit star.pst.qub.ac.uk for further information.		

1300 light years from Earth, new stars are being born in a glorious cloud of gas and dust. Come and see the Orion Nebula along with other stellar objects at Queen's University Belfast. Telescopes operated by members of Queen's Astrophysics Research Centre and the Irish Astronomical Association will be there allowing visitors the chance to view these fascinating spectacles with your own eyes!

This is a weather dependent event that will take place on one evening between Monday 20 and Wednesday 22 February, 6:30pm-10:00pm. The announcement on whether it is happening will be posted by 3pm on our webpages and our Facebook pages, along with further information.



MATHS AND PHYSICS

Two-Dimensional Materials: The Science of "Flatland"

DATE Monday 20 February	TIME(S) 6:30PM (45 mins)	SUITABILITY 14+
VENUE Bell Lecture Theatre, 1st floor, Main Physics Building, Queens Uni.		
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

In 2004, two UK researchers shook the scientific world by making a revolutionary discovery. They made the thinnest material in the world, graphene, which is only one atom thick – or about one million times thinner than a sheet of paper, at this time it was the world's strongest and most conductive material.

It turns out that a real-life world of two dimensions, inspired by the 1884 book "Flatland", exists after all and that graphene is just one member of a much larger family of its two-dimensional inhabitants. In this talk, we will explore what makes two-dimensional materials so unique, how can we make them and how can we use them to improve our future.





EARTH & ELEMENTS

Ice Ages of Early Earth

DATE Monday 20 February	TIME(S) 7:30PM (60 mins)
VENUE Ulster Museum, Botanic Gardens, Belfast	SUITABILITY 18+
ADMISSION & BOOKING Free. Registration is advised via nisciencefestival.com	

Scientists have recorded five major ice ages throughout Earth's history, some of them so severe that the entire Earth may have frozen over for tens of millions of years. There are many questions surrounding this; what triggered the low-latitude glaciations throughout the Precambrian and how did they differ from the more recent Phanerozoic glaciations? How did life survive and how did these ice ages end? Dr Catherine Rose of Trinity College Dublin will describe the field and geochemical evidence in the rocks that are proof of the oldest ice age in Earth's history and of the subsequent 'deep freeze' Cryogenian period just before the 'explosion' of life in the Cambrian.

Part of the Belfast Geologists' Society Winter lecture programme. All are welcome.



FOOD FOR THOUGHT

Cultured Club Fermentation

DATE Monday 20 February	TIME(S) 7:30-9PM
VENUE Black Box, Hill Street, Belfast	SUITABILITY 18+
ADMISSION & BOOKING £6 Book via nisciencefestival.com	

Meet the microbes who offer you vitality, energy and great health. There are trillions of these tiny creatures which call your body home and our health depends on having a thriving collection of microbes. From digestive health to immunity, mental health to gene expression they influence more than you could imagine.

Delve into the understanding your microbiome and discover how easy it is to optimise your gut health for your overall well being. This is science and this is art and where the two meet, there is magic! Join The Cultured Club and a local microbiologist for an evening of exploring the unseen world of bacteria.





SCIENCE COMMUNICATION

Mensa Magnificent Monday Quiz

DATE	Monday 20 February	TIME(S)	7:30-10:30PM
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING			
£2 per person (Pay at the door)			

Make the most of your Monday! Drop in at The Black Box for a light-hearted team quiz devised by Mensa, no football, no soaps - just science, technology, engineering and a bit of general knowledge. Even if your quizzing is less than impressive, grab a few friends and come on down for the craic! You might even win a prize. Teams of up to six people welcome.



Mensa
The High IQ Society



SCIENCE IN SOCIETY

Soap and Suds

DATE	Monday 20 February	TIME(S)	8-9.30PM (90 mins)
VENUE	Donaghmore Historical Society, Pomeroy Road, Donaghmore BT70 3HG	SUITABILITY	All ages
ADMISSION & BOOKING			
£5. Book via nisciencefestival.com			

From the 1870s, until it closed in the 1950s, Brown's Soap Factory and its brands of detergents and toiletries became household names all over the UK and Republic of Ireland. Join Patricia Bogue from Donaghmore Historical Society as she documents the story of Browns and its sights, sounds and smells of the famous Soap Works of yesteryear. Diarmaid Hanna from the Royal Society of Chemistry will join Patricia in outlining the chemistry behind soap making.





NATURAL WORLD

The Real Urban Jungle

DATE	Monday 20 February	TIME(S)	6:30PM
VENUE	The ARC (Arts Resource Centre), 7 Donegall Street Place, Belfast, BT1 2FN	SUITABILITY	14+
ADMISSION & BOOKING			
£3. Book via nisciencefestival.com			

Nature is under attack. The rainforests are shrinking, the ice caps melting, the seas poisoned. But there is one habitat that is expanding and thriving: the urban jungle. Our cities are not just filled with human life but with a surprising array of species that have come to live alongside us. In the heart of the city, evolution is moving at breakneck speed. Countless species are adapting to living in towns and, in some cases, entirely new species are being born. Join Simon Watt, presenter of the award winning documentary *Wild Cities Belfast*, as he looks at some of our new neighbours.



SPACE

We Come in Peace: Aliens in Popular Science Fiction

DATE	Tuesday 21 February	TIME(S)	6PM (45 mins)
VENUE	Bell Lecture Theatre, Main Physics Building, Queen's University Belfast	SUITABILITY	All ages
ADMISSION & BOOKING			
Free. Book via nisciencefestival.com			

This lecture will use short clips from films and television programmes to illustrate how science-fiction in the media sometimes gets science right but more often gets it wrong! Additionally the talk will show how difficult it is to make accurate predictions about the future and hence why most science-fiction films and television are extremely unrealistic. The lecture will also look at the portrayal of aliens in science-fiction, including that staple of many movies and television shows, "the alien invasion."





ENGINEERING AND ROBOTICS

Universities, Innovation and Growth

Sir Bernard Crossland Annual Lecture

DATE Tuesday 21 February	TIME(S) 6:30PM (90 mins)
VENUE Queens University, Riddel Hall, 185 Stranmillis Rd, Belfast	SUITABILITY 14+
ADMISSION & BOOKING Free. Registration is required via nisciencefestival.com	

This year, Engineers Ireland and Queen's University are delighted to welcome Professor Dame Ann Dowling OM DBE FRS FREng, President of the Royal Academy of Engineering and Deputy Vice-Chancellor and Professor of Mechanical Engineering at the University of Cambridge, to give the 16th Sir Bernard Crossland Annual Lecture. Ann will be discussing the role of universities in stimulating growth through the people they educate and through their research and enterprise activities. She will be placing particular emphasis on the importance of partnership between universities and businesses to ensure that these benefits are realised. Queen's Vice-Chancellor, Professor Patrick Johnston, will give the welcome address at this prestigious event.



ENGINEERING AND ROBOTICS

Robochallenge

DATE Tuesday 21 February	TIME(S) 7-9PM
VENUE Queens University Belfast, South Dining Hall (beside Whitla Hall)	SUITABILITY All ages
ADMISSION & BOOKING Free. Registration is required via nisciencefestival.com	

Bring robots to life in this fun and engaging hands-on introduction to programming and robotics. Join the engineering team from Sentinus as you work together to programme robots and drones. Learn how to program a robot to follow commands and navigate its way around a specific course and compete in a challenge at the end.

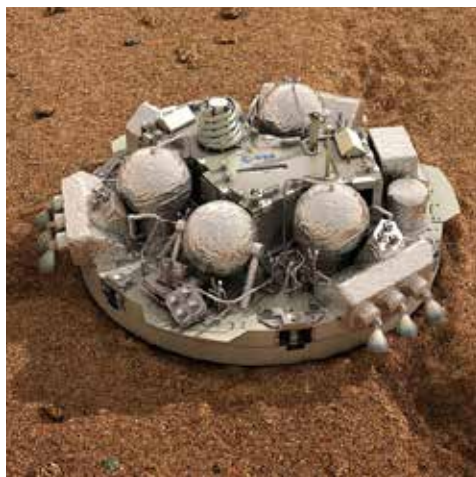


NATURAL WORLD

Save Our Red Squirrel - Plant a Tree

DATE Tuesday 21 February	TIME(S) 11AM
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See page 31 for full listing.



SPACE

Stargazing Open Night

DATE	Tuesday 21 February	TIME(S)	7-9PM
VENUE	Armagh Planetarium	SUITABILITY	All ages
ADMISSION & BOOKING Adm: £2.50 per child £3 per adult £10 per family (2 Adults + 3 Children). Pre-booking is essential for digital theatre show. Telephone 02837523689 or email reception@armaghplanet.com			

Marvel at the wonders of the cosmos on this very special evening in the Armagh Observatory and Planetarium. Visitors are invited to travel to the stars through a digital theatre show and be enthused by interactive talks by the astronomers. You will also have an opportunity to peek through our public telescope during this late opening session so make sure to wrap up as it will definitely be chilly! (Telescope viewing is weather dependant)



SPACE

OpenMinds Talks from The Open University Why Visit Mars?

DATE	Tuesday 21 February	TIME(S)	6:30PM (60 mins)
VENUE	Ulster Museum, Botanic Gardens Belfast	SUITABILITY	All ages
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Ever wonder what it might be like to stand on the red planet? Could exploring Mars answer questions about the origins and evolution of the Solar System? Dr Stephen Lewis and Rhian Chapman from The Open University will talk about the tricky probe landing attempts on Mars and what the current rover missions have been investigating.





SCIENCE IN SOCIETY

The Implications of Leaving the EU on STEM in NI

DATE Tuesday 21 February	TIME(S) 6PM (90 mins)
VENUE The Senate Chamber, Parliament Buildings, Stormont, Belfast	SUITABILITY 16+
ADMISSION & BOOKING Free. Registration is required via e-mail jeffesl@rsc.org	

How would leaving the EU affect our science, research and education? This event will take the form of a speaker panel discussion, with questions from the audience on the implications for STEM and innovation in Northern Ireland, following the decision to leave the European Union.

This event is sponsored by Naomi Long MLA, Chair of the NI Assembly All-Party Group on STEM.

FOOD FOR THOUGHT

The Mediterranean Diet: What Makes it so Healthy?

DATE Tuesday 21 February	TIME(S) 7PM
VENUE The Academy Restaurant, York Street Belfast	SUITABILITY 18+
ADMISSION & BOOKING £50 with wine / £35 without wine. Book via nisciencefestival.com	

The Mediterranean, home to sun, sea and perhaps more importantly – the key to living a longer, healthier life. Constituents of the Mediterranean diet have been associated with lower risks of heart disease, type II diabetes and reductions in blood pressure and cholesterol. But what is it exactly about the Mediterranean diet that makes it one of the healthiest in the world? Join us for a night of gastronomic discovery as researchers from the Centre of Excellence for Public Health Northern Ireland and Culinary Arts Management students from Ulster University team up to deliver a superb six course meal in The Academy restaurant (inclusive of wine pairing from the region) and provide information on the science behind the Mediterranean diet.





FOOD FOR THOUGHT

The 'Sustainable' Menu

DATE	Tuesday 21 February	TIME(S)	8PM
VENUE	Browns Restaurant and Champagne Lounge, 1 Bonds Hill, Waterside, Derry/Londonderry	SUITABILITY	18+
ADMISSION & BOOKING			
£38 - All booking enquiries and reservations are to be made through the Restaurant (Tel: 028 7134 5180)			

Head Chef Ian Orr is renowned for his dedication to fresh seasonal produce and support of local suppliers when offering diners a taste experience! On this special evening you are invited to enjoy a 6 course tasting menu with the emphasis on sustainable food products and sources.



tourism
northernireland



Northern
Ireland Year of Food
& Drink 2017



MIND AND BODY

Can you Die from a Broken Heart?

DATE	Tuesday 21 February	TIME(S)	6:30PM (60 mins)
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	14+
ADMISSION & BOOKING			
Free. Book via nisciencefestival.com			

History and literature is awash with tragic heroes and heroines dying from a broken heart. In Shakespeare's Romeo and Juliet, Lady Montague is reported by her husband to have died of a broken heart after her son's tragic death and King Lear perishes shortly after discovering the murder of his daughter Cordelia. But did you know "broken heart syndrome", known more formally as acute stress-induced cardiomyopathy or Tako-tsubo cardiomyopathy, is a recognised condition? Consultant cardiologist and British Heart Foundation cardiovascular scientist at the University of Aberdeen Dr Dana Dawson will discuss the origins of the medical condition; explain how Tako-tsubo cardiomyopathy happens, how it is diagnosed and its possible causes.





FOOD FOR THOUGHT

Food Fraud Detectives

DATE Tuesday 21 February	TIME(S) 1-6PM	
VENUE Elmwood Hall, QUB, Elmwood Mews, Belfast	SUITABILITY All ages	
ADMISSION & BOOKING Free drop-in workshops.		

Is oregano really oregano? Is cod really cod? Leading scientists will present the natural and social science methods used in detecting food fraud including Supply Chain Mapping, Social Network Analysis, Risk Ranking and finger printing technology.



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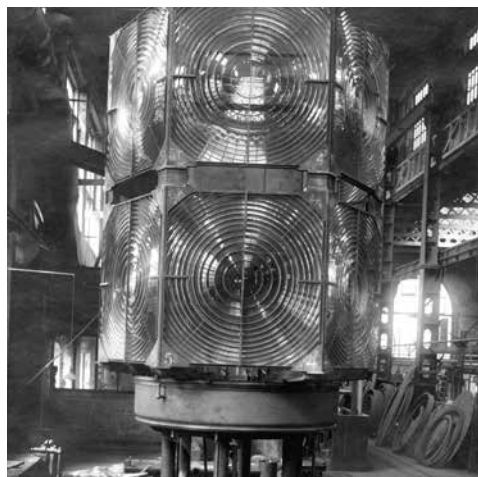
ART & SCIENCE

Matrix Science Poetry Competition

DATE Tuesday 21 February	TIME(S) 6.30PM	
VENUE Black Box, Hill Street, Belfast	SUITABILITY 18+	
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

MATRIX, the NI Science Industry Panel, is teaming up with the John Hewitt Society to bring you a night of talks and science themed poetry, culminating in a world record attempt for the most haiku tweeted at a single event! The MATRIX science poetry competition is now in its third year but this is its first appearance at the Science Festival. The theme for 2017 is Haiku, the 17 syllable Japanese form which lends itself beautifully to Twitter, where it becomes a Twaiku. Prizes to be won and of course the opportunity to be part of a new world record.





ENGINEERING AND ROBOTICS

Mew to TQ: Lighthouse Technology

DATE Wednesday 22 February	TIME(S) 2PM
VENUE W5, 2 Queens Quay, Belfast	SUITABILITY 16+
ADMISSION & BOOKING Free. To book your space please email info@titanic-foundation.org or call 02890730490	

Join Titanic Foundation & Commissioner for Irish Lights as they present a talk on one of the largest lighthouse optics of its kind ever constructed. Weighing 10 tonnes, measuring 7 metres tall and 130 years old, the Mew Island optic is a unique heritage object with significance to Belfast's economic, maritime and industrial past - and it's coming to Titanic Quarter in the summer of 2017!

The talk will explore the science and the innovation related to lighthouse technology: illustrating that the Fresnel lens was a major scientific breakthrough, the pinnacle of lighthouse lens size, and the energy sources used to provide the light. Concluding with a flash by flash encounter of its journey from Mew to TQ.



EARTH AND ELEMENTS

In Our Element: In Touch with Science

DATE Wednesday 22 February	TIME(S) 2.30PM
VENUE Derry Central Library, 35 Foyle Street, Derry/Londonderry	SUITABILITY All ages
ADMISSION & BOOKING Free. No registration required.	

Join Mike Simms, curator of the Ulster Museum's Elements exhibition, to find out more about the raw ingredients from which you, and everything else you can see in the Universe, are made. Discover how our colourful world is built from grey metals and colourless gases. See for yourself how we can prove that the elements in distant stars are no different from those on Earth. Experience the true density of gold and take the opportunity to handle a piece of the rarest stable element on Earth.





EARTH AND ELEMENTS

The Open Data Mapping Challenge

DATE	Wednesday 22 February	TIME(S)	6-7:30PM
VENUE	Queens University Belfast, School of Natural & Built Environment, Elmwood Avenue, Belfast	SUITABILITY	14+
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Calling all map enthusiasts! The popularity of open street map is a great example of how open spatial data is increasingly commonplace in today's society and this is your chance to join in a workshop which focuses on the creation of maps. You will use free open source software and will also have access to environmental, demographic or health data. Maps can be created for fun, to visualise and emphasize a pattern or for decision-making so join the Geographical Information Science team at the School of Natural & Built Environment to choose your open data, learn about open Geographical Information Systems software (QGIS) and create and customise your own maps!



SPACE

Exploring the Red Planet Adventures of the Curiosity Rover

DATE	Wednesday 22 February	TIME(S)	6:30-8PM
VENUE	Larmour Lecture Theatre, Queen's University, Belfast	SUITABILITY	14+
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Since the first flyby in 1965 Mars has been extensively explored by orbiters, landers and rovers and today we know a great deal about the planet's surface, atmosphere and geological history. This lecture will focus on the results from most recent NASA Mars Science Laboratory mission - The Curiosity Rover Mission. It will also look forward to the upcoming European mission. Professor Sanjeev Gupta, who is based at Imperial College London, is a field geologist and expert on Mars geology. He is a science team member and long term science planner on NASA's Mars Science Laboratory Curiosity rover mission, which is currently exploring Gale Crater. He has published extensively both on Martian and terrestrial geology. This event is supported by: Belfast Geologists' Society, The Geological Society Northern Ireland Regional Group and The Irish Astronomical Association.



SCIENCE IN SOCIETY

The Entrepreneurial Scientist and the Sustainable Development Goals

DATE Wednesday 22 February	TIME(S) 6:30-8PM
VENUE Catalyst Inc, The Innovation Centre, Belfast	SUITABILITY 18+
ADMISSION & BOOKING Free. Registration is required via nisciencefestival.com	

British Council Northern Ireland in partnership with Catalyst Inc. presents an evening of discussion with international scientists, together with key players from Northern Ireland's innovation and development sectors. How can entrepreneurialism go hand in hand with sustainable development? Given the universality of the UN's Sustainable Development Goals, what does this mean for Northern Ireland? Be the public voice in this meeting of minds. This world café style event will draw on international expertise from scholars working in the UK through the Newton Fund. The Newton Fund uses science and innovation partnerships to promote economic and social welfare of partner countries.



NATURAL WORLD

The Stories in a Pollen Grain

DATE Wednesday 22 February	TIME(S) 11AM (30 mins)
VENUE Archaeology and Palaeoecology Centre, 42 Fitzwilliam Street, Queen's University, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free. Registration is required via nisciencefestival.com	

From sneezing and hay-fever, to crime scenes and ancient landscapes, this event explores what pollen is, why it affects us and the big stories that these tiny grains can tell.





Future Artist-Makers: Musician Artist-Makers Improv

Food Fraud Risk and Resilience along the Food Supply Chain

Join artist instrument builder Ed Devane in a unique music making and improvisation workshop. Day 1 will include using Arduino with Ableton Live to create robot drummers, light controls and sensors, and sound design incorporating DIY instrument building, found sounds and effect feedback. Day 2 will include improvisation exercises and short creative challenges, building up to a public performance of the work. Suitable for people with some musical experience (not essential but recommended) and a willingness to collaborate, improvise and try something different (essential). The aim is to give participants an introduction to a variety of technologies and creative approaches that they can bring to their own practice as musicians or creative people.

These workshops will provide information on the fish and beef supply chains, the legal framework and alternative practices used in preventing food fraud and the impact of food fraud on consumer trust and the strategies used to improve trust.





TECH AND DIGITAL

Future Artist Makers Symposium

DATE 22 & 23 February	TIME(S) 10AM	
VENUE Nerve Visual Gallery, Building Eight81, Ebrington, Derry/Londonderry BT47 6FA	SUITABILITY All ages	
ADMISSION & BOOKING Free. Drop In event.		

From the printing press to colour photography to powerful laser cutters, the creativity of each generation's artist-makers evolves in relation to new technologies.

Find out how artist-makers from across Europe are critically engaging with the FabLab ethos of opensource design and creative collaboration, and how the combination of 'new machines, new materials and new networks' are beginning to make their mark.

This is an opportunity for artists and makers to see the exhibition, hear from artists involved, network, and discuss new ways forward in using FabLab technologies.



FOOD FOR THOUGHT

Coffee Culture Chemistry

DATE Wednesday 22 February	TIME(S) 8:30PM (90 mins)	
VENUE Bullitt Hotel, 40a Church Ln, Belfast BT1 4QN	SUITABILITY 18+	
ADMISSION & BOOKING £10. Book via nisciencefestival.com		

Calling all coffee lovers! Did you know there is a surprising amount of chemistry that perfect cup of coffee? Join us for an evening with Jan Komarek from Bailies Coffee Roasters, who will explain how the company's own brand of coffee is specially sourced and perfectly prepared to create its famous aroma and rich flavour. Enjoy coffee samples throughout the evening, served to perfection by our experienced in-house baristas.





SCIENCE COMMUNICATION

Tenx9: The Final Frontier

DATE	Wednesday 22 February	TIME(S)	7PM (120 mins)
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING Free. No booking required, just come early!			

For the second year, Tenx9 and the NI Science Festival are delighted to partner with each other for a night of true stories about “The final frontier”. This isn’t a night for presenting your PhD thesis (although obviously that’d be really, really interesting) but it’s a night for telling true stories from your life. We’re hoping to hear stories from scientists about their final frontiers, stories about everyday frontiers, stories about people who it seemed came from another planet, stories about what it’s like to be a 21st century Trekkie and so on. Always a blast, and always free, come along to Tenx9.

If you’re interested in telling a story check out Tenx9.com/science2017



FOOD FOR THOUGHT

Food & Wine Pairing Evening

DATE	Wednesday 22 February	TIME(S)	7:30-9:30PM
VENUE	Direct Wine Shipments 5-7 Corporation Square, Belfast BT1 3AJ	SUITABILITY	18+
ADMISSION & BOOKING £20 per person. Booking via nisciencefestival.com			

“Food without wine is a corpse; wine without food is a ghost; united and well matched they are as body and soul, living partners.”

- Andre Simon (1877-1970)

Have you ever tasted wine or orange juice just after you’ve cleaned your teeth? Then you’ll know it’s not a pleasant experience. Join Direct Wine Shipments as we explore how different wines match or don’t match with certain foods. We’ll find out why some pairings are a match made in heaven and why some are a real struggle. Why do some wines bring out the best in food and vice versa? How our taste affects what we eat/drink? Book now for an evening of wine tasting with a variety of food and decide which combinations make the best partners.





MIND AND BODY

Scanning the Horizon: The Health of a Nation

DATE	TIME(S)
Wednesday 22 February	6-7:30PM
VENUE	SUITABILITY
Queen's Film Theatre, University Square, Belfast BT7 1PA	18+
ADMISSION & BOOKING	
Free. Registration is required via nisciencefestival.com	

Over the last 52 years BBC's Horizon programme has been documenting the cutting-edge of science, technology and how it affects our lives.

We'll get unique access to clips from the Horizon vaults to watch how medicine has evolved over the last five decades. Horizon Editor Steve Crabtree will curate our journey through the archives, pulling out key moments of health discoveries and disease outbreaks. He will be joined by special guests to add their own unique insights into the footage.

Join us for a lively evening of discussion and moving footage exploring how we have been monitoring and managing our health, and how this journey of discovery has unfolded on camera.





SCIENCE IN SOCIETY

Bettany Hughes, 'Istanbul The World's Desire'

Jack Kerr Memorial Lecture

DATE Thursday 23 February		TIME(S) 6:30PM (90 mins)
VENUE Ulster Museum, Botanic Gardens, Belfast BT9 5AB		SUITABILITY 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Award-winning historian and broadcaster, Bettany Hughes, presents an epic new biography of Istanbul - the city with three names – Byzantium, Constantinople, Istanbul, the gateway between the East and the West, and between the North and the South, which served as the capital of the Late Roman, Byzantine, Latin and Ottoman Empires.

Using the very latest archaeological techniques and finds Bettany brings back to life the story of the city's inhabitants across 8000 years. The event begins with a wine reception, followed by Bettany's lecture, after which she will be available to sign copies of her new book on Istanbul.





NATURAL WORLD

The Magic of Plants

DATE Thursday 23 February	TIME(S) 11AM-12:30 PM(90 mins)
VENUE Botanic Gardens Bowling Pavilion, College Park, Botanic Avenue, Belfast	SUITABILITY 16+
ADMISSION & BOOKING £5. Booking via nisciencefestival.com	

Botanic practical demonstration and workshop on the beautiful details of ferns, mosses, horsetails and liverworts – the often neglected green background of our parks and gardens. Live demonstrations using modern stereo-binocular and high magnification microscopes with live video projection so that all participants can see at the same time. Making use of plants from the Tropical ravine and the gardens freshly collected for the workshop. This one-off event will be of interest to gardeners, natural historians and a great source of inspiration for artists.



NATURAL WORLD

Samsara 2011, Documentary, (12)

DATE Thursday 23 February	TIME(S) 8-9:30 PM
VENUE Strand Arts Centre, 152-154 Hollywood Rd, Belfast	SUITABILITY 12+
ADMISSION & BOOKING £4. Booking recommended at strandartscentre.com	

Filmed over nearly five years in 25 countries on five continents, and shot on 70 millimetre film, Samsara transports us to the varied worlds of sacred grounds, disaster zones, industrial complexes, and natural wonders.

This documentary will have an introduction from a local Biologist. A visually stunning film worth catching on the big screen, not to be missed! Directed by Ron Fricke who also made Baraka (1992) and Koyaanisqatsi (1982).

STRAND
ARTS CENTRE



ENGINEERING & ROBOTICS

Can Machines ever be Truly Creative?

DATE	Thursday 23 February	TIME(S)	1-2PM
VENUE	Ulster Museum, Botanic Gardens, Belfast, BT9 5AB	SUITABILITY	14+
ADMISSION & BOOKING Free - Booking required via nisciencefestival.com			

Can you tell whether a piece of work was created by a computer or a human? Advances in machine learning have led to the generation of forms of art, written word, music and more, all by AI technology. But does this show true creativity?

Join Marcus Du Sautoy and a panel of expert speakers to discuss whether AI just gives an illusion of novel thinking, or whether it is possible for software systems to exhibit creative behaviour. Explore whether artificial intelligence could ever demonstrate imagination and rival human intellect.

Can you tell whether a piece of work was created by a computer or a human? Advances in machine learning have led to the generation of forms of art, written word, music and more, all by AI technology. But does this show true creativity?

MATHS & PHYSICS

Marcus du Sautoy - What We Cannot Know

DATE	Thursday 23 February	TIME(S)	4-5PM
VENUE	Ulster Museum, Botanic Gardens, Belfast, BT9 5AB	SUITABILITY	14+
ADMISSION & BOOKING £6 / 3 Concession. Booking via nisciencefestival.com			

Is it possible that we will one day know everything? Or are there fields of research that will always lie beyond the bounds of our finite brains? And if so, how do we cope with living in a universe where there are things that will forever transcend our understanding?

Join Britain's most famous mathematician, Prof. Marcus Du Sautoy, as he takes you to the edge of knowledge to discover if there is anything we truly cannot know.

THE
ROYAL
SOCIETY



FOOD FOR THOUGHT

What's Your Poison? (Belfast)

DATE	Thursday 23 February	TIME(S)	8-10:30PM
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING £20. Booking via nisciencefestival.com . Price Includes Three Cocktail Drinks			

Join us for an evening of toxicology and intoxication! From the people who brought us the extremely popular Synaesthesia Cocktail night in 2016, you'll be treated to three delicious drinks while gaining a factual insight into the physiology and pharmacology of poison and learn about the toxic ingredients we consume on a day-to-day basis.



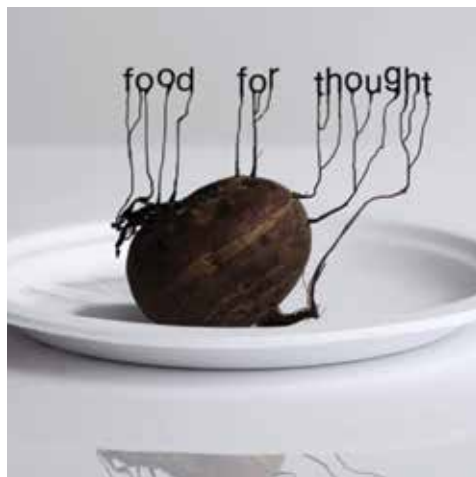
SPACE

Mapping Mars

DATE	Thursday 23 February	TIME(S)	7-8:30 PM
VENUE	Queens University Belfast, School of Natural & Built Environment, Elmwood Avenue, Belfast	SUITABILITY	16+
ADMISSION & BOOKING Free. Registration via nisciencefestival.com			

Geographical Information Systems (GIS) have been used successfully on Earth for decades to map, analyse and visualise spatial data collected from Aircraft and Satellite Systems and Sensors. But did you know a GIS can be used with data from other planets? Through our workshop we will map and visualise the amazing surface features imaged by the HiRISE camera on NASA's Mars Reconnaissance Orbiter. Discover vast plains, deep canyons, high mountain ranges, extensive dune fields, wide craters and Martian Glaciers! The workshop will finish with a visit to Mars and the Curiosity Rover using our GIS Lab Virtual Reality Headset!





FOOD FOR THOUGHT

A Taste of Things to Come

DATE	Thursday 23 February	TIME(S)	7:30-10:30 PM
VENUE	The Merchant Hotel, Veuve Cliquot Champagne Lounge	SUITABILITY	18+
ADMISSION & BOOKING £44. Booking via nisciencefestival.com			

This tasting seeks to challenge how we perceive our food; provoking guests to consider food from a nutritional perspective, whilst questioning the sources from which we get sustenance, the sustainability of current farming processes, the possibility of laboratory harvested foodstuffs and the availability of produce from the ocean.



ENGINEERING & ROBOTICS

Engineering Futures

DATE	Thursday 23 February	TIME(S)	6:30-8:30PM
VENUE	Ulster University Jordanstown, Shore Road, Newtownabbey	SUITABILITY	All ages
ADMISSION & BOOKING For bookings contact Ann Blair on 028 90368664 or email a.blair@ulster.ac.uk			

Engineering Futures presents a range of exciting interactive demonstrations and workshops across 4 key themes: Future Health and The Internet of Medical Things - Explore the latest in wearable diagnostic technology; Connected-Health to Ambient-Assisted-Living - Design software engineering and health-arduinios, measure your vital-signs, or explore a smart-environment which senses your every move; Future Transport – From the Future Bus to green cars. Find out how to build an electric-car and make super-light and strong carbon-composites; Future Energy – Cleaning water using sunlight, using hydrogen as the fuel of the future, converting sunlight directly to electricity; Future Manufacturing - Rapid Prototyping is quite simply revolutionizing product design. Turn your ideas into 3D products within hours.





TECH AND DIGITAL

Turing Lecture 2017

Beneficial AI for the Advancement of Humankind

DATE Thursday 23 February	TIME(S) 6:30-8:30PM
VENUE Belfast City Hall, Donegall Square, Belfast BT1 5GS	SUITABILITY 14+
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

Join Dr Guruduth S. Banavar, VP & Chief Science Officer, Cognitive Computing, IBM Research for the 2017 Turing Lecture. This talk will provide an overview of cognitive computing, the technology breakthroughs that are enabling this trend, practical applications for the real-world and ethical considerations, guiding the development and deployment of the technology for the benefit of humankind.

In the last decade, the availability of massive amounts of new data, the development of new machine learning technologies and the availability of scalable computing infrastructure has given rise to a new class of computing systems. These “Cognitive Systems” learn from data, reason from models and interact naturally with us, to perform complex tasks better than either humans or machines can do by themselves. These tasks range from answering questions conversationally to extracting knowledge for discovering insights to evaluating options for difficult decisions. These cognitive systems are designed to create new partnerships between people and machines to augment and scale human expertise in every industry, from healthcare to financial services to education.





EARTH AND ELEMENTS

LaTe LaB3

DATE	Friday 24 February	TIME(S)	7PM
VENUE	Ulster Museum, Botanic Gardens, Belfast	SUITABILITY	18+
ADMISSION & BOOKING			
£5. Book via nisciencefestival.com			

The best things in life are...3! We promise not to rip you off with limp prequels or sequels, like 'The Bourne Ultimatum' the third in our LaTe LaB trilogy is set to be an adrenaline-fuelled, action-packed night's entertainment. We've rejuvenated what works, ditched what doesn't and invited some newbies along for the ride. Join brilliant scientists as they push the boundaries of science and let you step into their experiments, enjoy risqué and breath-taking live science shows, drink with dinosaurs and share intimate sets with hot bands of the moment (under the watchful eye of a 'living fossil'). Who's in? #LaTeLaB3



explore/engage/enjoy



NATURAL WORLD

The Battle of Predators and Pests

DATE Friday 24 February	TIME(S) 2PM (60 mins)
VENUE Bowling Pavilion, Botanic Gardens, Belfast	SUITABILITY 18+
ADMISSION & BOOKING £3 Book via nisciencefestival.com	

Biological control is the use of natural enemies to control pests. In the home garden this can be done by introducing predators that eat the pests, parasitic wasps that parasitize the pests or pathogenic nematodes that enter into and infect the pest with a fatal bacterial disease. Biological controls are mainly used in greenhouses, like the Tropical Ravine, so come along to this practical workshop with our expert to engage in live demonstrations using modern stereo-binocular and high magnification microscopes with live video projection to watch the world of pest and predator as they do battle on pre infected plants.



Belfast City Council



FOOD FOR THOUGHT

What's Your Poison (Derry)

DATE Friday 24 February	TIME(S) BPM
VENUE Playhouse, 5-7 Artillery Street, Derry-Londonderry	SUITABILITY 18+
ADMISSION & BOOKING £20. Book via nisciencefestival.com	

For full listing see page 68.



FOOD FOR THOUGHT

Food Integrity – The Nuclear Option

Jack Pearce Memorial Lecture

DATE Friday 24 February	TIME(S) 6.30PM (90 mins)
VENUE David Kier Building, Stranmillis Road, Queens University, Belfast, Lecture Theatre OG 012	SUITABILITY 16+
ADMISSION & BOOKING Free. Drop in event.	

Jack Pearce (1942 – 2016), was Professor of food science at Queen's University, a past President of the IFST and a member of the team handling radiological food safety in the aftermath of Chernobyl. Dr Andrew Cannavan led the International Atomic Energy Agency's Food Safety Assessment Team in Fukushima after the nuclear disaster and works closely with the Queen's University Institute for Global Food Security. Andrew will pay tribute to Jack's work and discuss his own experiences, emergency preparedness and responses to nuclear incidents. He will also describe IAEA's work supporting and enhancing food safety, mainly in developing countries.



Queen's University
Belfast



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EARTH AND ELEMENTS

Modelling Ritual Worlds in Prehistory

DATE Friday 24 February	TIME(S) 12:30 PM (90 mins)
VENUE Archaeology and Palaeoecology Building, 42 Fitzwilliam Street, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free. Drop in event.	

This exhibition presents projects undertaken by third-year students that modeled archaeological sites and objects related to rituals in prehistory. The students will be on hand to discuss their work, illustrated by posters and digital graphics. There will also be opportunities for visitors to try their hand at creating an object or model site with a variety of materials.



SCIENCE IN SOCIETY

BBC Make It

DATE & TIME Fri 24 Feb, 3-9PM & Sat 25 Feb, 11AM - 5PM	
VENUE Skainos Centre, 241 Newtownards Road, Belfast	SUITABILITY 16 - 25
ADMISSION & BOOKING Free drop-in event.	

Make It @ Northern Ireland Science Festival is a skills fair with a difference! Drop in to our supersized 'show and tell' to discover the science behind the jobs you never knew existed. You'll have the chance to step into the shoes of ordinary people who have some curious careers to see if you could cut it in their industry.

During the event Make It: Super Assembly will be broadcasting live with inspiring stories from individuals who work at all levels in science and technology. They'll be sharing their experiences and giving advice to help you take your first steps towards making it!





SCIENCE COMMUNICATION

NI Science Festival North West Roadshow

DATE Saturday 25 February	TIME(S) 10AM- 5pm Open to the Public
VENUE Foyle Arena, 2, Limavady Rd, Derry- Londonderry BT47 6JY	SUITABILITY All ages
ADMISSION & BOOKING Free. Book via nisciencefestival.com	

The NI Science Festival Roadshow is a hands-on event designed to encourage students to think like scientists and engineers. At this event, pupils will have a go at carrying out experiments, controlling and programming robots, using 3D printers, creating 2D games and apps, learning about the habits and habitats of creatures like bats and fish.

We will also be running interactive science shows which will take you on a journey to explore different types of energy, a teddy bear rocket launcher, looks at how electricity flows, how air moves and even build a hover craft on stage!

This event will feature lots of bangs and explosions, and will require audience participation throughout.

Supported by DCSDC, Institute of Physics, Ulster University, STEM Aware, COE Colour, Aislinn Cassidy, Creggan Country Park, Reading Rooms, Little Legends, Derry Productions, Kippie, FabLab, Loughs Agency, IM Happy, Intelligent Systems Research Centre.





NATURAL WORLD

Park Life Saturday Club

DATE	Saturday 25 February	TIME(S)	10AM (90 mins)
VENUE	Botanic Gardens Bowling Pavilion, College Park, Botanic Avenue, BT7 1LP	SUITABILITY	All ages
ADMISSION & BOOKING Free. Book via ParkLife@belfastcity.gov.uk			

Come along to our Saturday club and heart your park. Find out all about your health and heart by playing games with a natural twist and showing your park how much you love it!

Saturday clubs are for children aged 7 to 12. Younger children are welcome, but must be accompanied by an adult



Belfast
City Council



NATURAL WORLD

Games of Stones: Rocks, Fossils, Earthquakes and Volcanoes

DATE	Saturday 25 February	TIME(S)	11AM
VENUE	Ulster Museum, Botanic Gardens, Belfast	SUITABILITY	All ages
ADMISSION & BOOKING Free drop in event.			

Join geologists from around Northern Ireland to discover how party poppers can help us understand earthquakes and how the fizziness of lava causes volcanic eruptions. Discover what rocks lie beneath your home and how old they are. See a real seismometer in action as it detects earthquakes and handle some of the fabulous fossils and marvellous minerals from the Ulster Museum's collections. You can even make your own fossil plaster cast to take away.



explore/engage/enjoy



SPACE

Dr Niamh Shaw at Armagh Planetarium

DATE Saturday 25 February	TIME(S) 1PM & 2PM (approx 60 mins)
VENUE Armagh Planetarium	SUITABILITY All ages
ADMISSION & BOOKING £2 Book by calling 02837523689	

Dr Niamh Shaw, an Irish performer, scientist and engineer, is passionate about all things Space and plans to get to Space within the next 8 years. Attending the International Space University's annual Space Studies Programme in 2015 in association with NASA, she was selected as a crew member on Crew 173 Mars analog mission, in January 2017 in the Utah desert in partnership with The Mars Society. Come meet Niamh here at the planetarium and hear her thoughts on her trip to Utah and what it will take to become the first Irish Astronaut!



EARTH AND ELEMENTS

Travel 10,000 Years in an Hour

DATE Saturday 25 February	TIME(S) 10AM (last admission 4PM)
VENUE Archaeology and Palaeoecology Building, 42 Fitzwilliam Street, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free drop in event.	

Visit our drop in exhibition and learn about 10,000 years of Ulster's history.

See displays and presentations based on the work of the Centre for Archaeological Fieldwork at Queen's, now celebrating 15 years of discovering the past. Examine and handle real archaeological artifacts, look at archaeological samples under a microscope. Talk to archaeologists from the Centre for Archaeological Fieldwork at Queen's and ask them questions about the archaeology all around you. Young children can take part in our "sandbox dig" and search for finds. The event is suitable for all ages but children must be accompanied by an adult.





EARTH AND ELEMENTS

Dye Tracing Experiment in the Marble Arch Caves

DATE	TIME(S)	SUITABILITY
Saturday 25 February	11AM	10+
VENUE		
Marble Arch Caves, 43 Marlbank Road, Legnabrocky, Florencecourt		
ADMISSION & BOOKING		
Free. Book via nisciencefestival.com		

The Marble Arch Caves are a key site in the Marble Arch Caves UNESCO Global Geopark. They are one of Europe's finest show caves and provide a glimpse into a fascinating, natural underworld of rivers, winding passages and lofty chambers. Join staff to hear about the hydrology of these fascinating caves while watching the Owenbrean River turn a luminous shade of green! Dye tracing is a method used by hydrologists to track and trace the flow of underground streams and rivers. Learn about the importance of dye tracing in the field of Geology and the equipment used to carry out these exciting experiments. Find out about the tracing experiments that have been carried out in the wonderfully wet County Fermanagh!



Marble Arch Caves
Global Geopark



Fermanagh & Omagh
District Council
Comhairle Ceantair
Fhear Manach agus na hÓmai



FOOD FOR THOUGHT

AFBI Open Day

DATE	TIME(S)	SUITABILITY
Saturday 25 February	10AM (60 mins)	All ages
VENUE		
AFBI, Large Park, Hillsborough BT26 6DR		
ADMISSION & BOOKING		
Free. Book via nisciencefestival.com		

This is a unique opportunity to glimpse into a modern research farm and the scientists and agricultural researchers that work there. The guided tours will visit several areas around the farm taking in modern beef, dairy and pig production, animal health and welfare, anaerobic digestion and renewable energy.

This is an outdoor event, therefore please wear warm clothing and appropriate footwear.





FOOD FOR THOUGHT

A Taste of Flavour SenseNation (Belfast)

DATE Saturday 25 February	TIME(S) 2-3PM & 4-5PM (60 mins)	SUITABILITY 8+
VENUE Black Box, 18-22 Hill Street, Belfast, BT1 2LA		
ADMISSION & BOOKING £8. Book via nisciencefestival.com		

Fancy a taste of Flavour SenseNation? This is an exciting new interactive event that takes your taste buds on a roller-coaster ride through the senses. It will challenge your sensory skills, your taste, smell, touch, sight and hearing, to see how they react with each other when different sounds, smells and textures are thrown into the mix. This is no ordinary experience; you will sample the “fifth taste”, test your smelling memory skills, trick your taste buds and sample some very weird foods.



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ART AND SCIENCE

Little Legends

DATE Saturday 25 February	TIME(S) 11AM (60 mins)	SUITABILITY 6 and under, 6-10
VENUE Eason, Foyle side, Orchard Street, Derry-Londonderry		
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Little Legends Reading Rooms is an innovative, shared-reading programme, based in the community, which uses poetry and prose to engage with children and young people to develop a love of reading.

For this special event, Little Legends will deliver a customised programme of science related reading activities to children and young people in partnership with Foyle side and Eason.

The free
**Little
Legends**
Club

READING
ROOMS
Virtual



FOOD FOR THOUGHT

Viticulture and Vinification Workshop

DATE Saturday 25 February	TIME(S) 2PM (90mins)
VENUE Direct Wine Shipments, 5-7 Corporation Square, Belfast	SUITABILITY 18+
ADMISSION & BOOKING £20 per person. Book via nisciencefestival.com	

You can make bad wine from good grapes but you can't make good wine from bad grapes! Join wine expert & WSET Lecturer Peter Morris Wilson DipWSET as we explore how Viticulture (vineyard management) & Vinification (winemaking) decisions affect the wine we drink. By tasting a selection of wine styles we will examine how the wine may be affected by climate, botrytis cinerea, carbonic maceration, oak & ageing. This will be a relaxed afternoon learning about the science of wine and enjoying the taste!



ENGINEERING AND ROBOTICS

Off the Rails Trail

DATE Saturday 25 February	TIME(S) 10:30AM (90 mins)
VENUE Titanic Quarter, Titanic House, 6 Queens Road, Belfast	SUITABILITY All ages
ADMISSION & BOOKING £6. Registration via info@titanic-foundation.org	

A family friendly trail, where you get to explore Titanic Quarter (TQ), searching for clues to the area's shipbuilding and maritime heritage past, all with a scientific twist. The Wee Tram will ferry everyone around the area, accompanied by a guide and a treasure map with all the clues!

Stops include the Pump House, where you will find out about the engineering brilliance of the original pumps. Immerse yourself in Titanic's history as you walk along the Dry Dock where the mighty liner was finished. The Wee Tram will be stopping along the original rail tracks from the coal cart rails on the slipways, the tram rails at HMS Caroline and the steam crane rails alongside the Thompson Dock.





NATURAL WORLD

Have a Go: Bird Box Making Workshop

DATE Saturday 25 February	TIME(S) 10AM
VENUE Mount Stewart, Portaferry Road, Newtownards	SUITABILITY All ages
ADMISSION & BOOKING Free but donations welcome. Booking Advisable via (028) 4278 8387	

With spring around the corner this is the best time to build homes for your garden birds and gain some essential woodworking skills.

We will use timber reclaimed from the restoration project of Mount Stewart as well as other reusable materials. It is free to build the box however any donations will help us cover the cost of materials. By the end of the day you should have your own unique bird box to take home.



National
Trust



SCIENCE COMMUNICATION

Rebel Science

DATE Saturday 25 February	TIME(S) 2PM (60 mins)
VENUE Crescent Arts Centre, 2-4 University Road, Belfast	SUITABILITY 6-14
ADMISSION & BOOKING Free. Booking is advised via nisciencefestival.com	

Think scientists are boring boffins who don't leave the lab? Think again! The brainiacs of history spent hundreds of years breaking the rules, blowing things up and performing dangerous experiments.

Celebrate 400 years of rebel antics with Dan Green, author of Rebel Science, shortlisted for the Royal Society Young People's Book Prize. Featuring:

- Tycho Brahe, the astronomer with the metal nose and pet moose!
- Original rebel scientist Galileo Galilei dodging being burned alive!
- It's the wurst – Rudolph Virchow fights a duel with sausages!

Expect plenty of silly wigs and terrible jokes. Dress up as a scientist and be in with a chance of winning a signed copy of Rebel Science! In partnership with The Royal Society.

THE
ROYAL
SOCIETY



ART AND SCIENCE

In conversation with Greg Wilson

DATE	Saturday 25 February	TIME(S)	6-7PM
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING £6 Booking via nisciencefestival.com			

Greg Wilson is an electro-funk pioneer and nowadays leading figure in the global disco/re-edits movement. DJing since 1975 Greg has gained much respect as a commentator on dance music and popular culture. In this conversation Greg will delve into the history of the DJ and most notably the movement of the science behind the vinyl into a digital DJ eara.

**SUN
FLOWER
FEST**

ART AND SCIENCE

DJ Night with Greg Wilson

DATE	Saturday 25 February	TIME(S)	8.30PM – Late
VENUE	Black Box, Hill Street, Belfast	SUITABILITY	18+
ADMISSION & BOOKING £12. Book via nisciencefestival.com			

Greg Wilson's new label, Super Weird Substance sees his focus return to original recordings as well as live events, known as 'Super Weird Happenings'. A night not to be missed by any Electrofunkroots and Dance music enthusiasts! See you there.



NATURAL WORLD

Belfast's Buzzing

DATE Sunday 26 February	TIME(S) 11AM
VENUE Ulster Museum, Botanic Gardens, Belfast, BT9 5AB	SUITABILITY All ages
ADMISSION & BOOKING FREE. Booking is advisable. Free tickets available on the Ulster Museum website www.nmni.com/um or Telephone: Ulster Museum Reception 028 9044 0000	

Come along and discover the curious and sometimes unbelievable world of our amazing bugs and insects.

Whether it's bee keeping, wild bees, butterflies, moths or spiders, we will provide you with fascinating facts in our series of interactive talks.

Explore how dependent we are on these tiny creatures for our food and find out how to protect these super minibeasts. Help us make Belfast a City of Wildflowers. Participants will receive a packet of free wildflower seeds to bring colour and 'buzz' to Belfast.



Belfast
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MATHS & PHYSICS

Physics Busking

DATE Sunday 26 February	TIME(S) 11AM-3PM
VENUE St. George's Market, Belfast	SUITABILITY All ages
ADMISSION & BOOKING Free drop-in event	

Come along to St George's Market and be entertained by some of the best Physics Busking in the Universe. Be amazed by sights and tricks, using everyday objects to open up a new world of curiosity and understanding. The Institute of Physics team invites you into a realm of invisible forces and remarkable matter. You are encouraged to play along and join in the unstoppable infectious physics fun!

IOP | Institute of Physics
In Ireland

FOOD FOR THOUGHT

A Taste of Flavour Sense Nation (Derry)

DATE Sunday 26 February	TIME(S) 3PM (60 mins)
VENUE Playhouse Theatre, Derry/ Londonderry	SUITABILITY 8+
ADMISSION & BOOKING £8. Book via nisciencefestival.com	

See page 78 for full listing.



MATHS AND PHYSICS

In Conversation

Jocelyn Bell Burnell and Jim Al-Khalili

DATE Sunday 26 February	TIME(S) 2PM (60mins)
VENUE Whitla Hall, Queens University, University Road, Belfast BT7 1NN	SUITABILITY 14+
ADMISSION & BOOKING £6. Book via nisciencefestival.com	

The Institute of Physics is proud to present an afternoon of wide-ranging conversation with two esteemed physicists, Dame Jocelyn Bell Burnell and Professor Jim Al-Khalili.

Born in Belfast, Dame Jocelyn Bell Burnell is an astrophysicist and is best known for her discovery of pulsars — rotating neutron stars that appear to ‘pulse’ since the beam of light they emit can only be seen when it faces the Earth. Her observation, made together with her supervisor, Antony Hewish, is considered to be one of the greatest astronomical discoveries of the twentieth century.

Join Jocelyn as she discusses her life and work in science with physicist, author and broadcaster Professor Jim Al-Khalili.

MATHS AND PHYSICS

John Bell Lecture

Quantum Biology with Professor Jim Al-Khalili

DATE Sunday 26 February	TIME(S) 4PM (60mins)
VENUE Whitla Hall, Queens University, University Road, Belfast BT7 1NN	SUITABILITY 14+
ADMISSION & BOOKING £6. Book via nisciencefestival.com	

John Stewart Bell, a Belfast scientist and Queen’s graduate, made one of the most profound scientific discoveries of the 20th Century. Known as Bell’s Theorem, his work on non-locality resolved a long standing dispute involving Albert Einstein and showed that Einstein’s views on quantum mechanics were incorrect. In honour and recognition of Bell’s contribution to the field of quantum physics, the Institute of Physics is delighted to present the first annual John Bell lecture.

At this special event, Professor Jim Al-Khalili will delve into the fascinating field of quantum biology, examining the impact of recent research and what this means for our understanding of what life really is.



EARTH AND ELEMENTS

Lotions, Potions and Explosions

DATE	Sunday 26 February	TIME(S)	12:30pm & 2:30pm
VENUE	Ulster Museum, Botanic Gardens, Belfast	SUITABILITY	All ages
ADMISSION & BOOKING £3 each or £10 for family of four to include at least one adult. Booking is essential. Booking on Ulster Museum website www.nmni.com/um/What-s-on			

Scientific Sue is back with her exciting Lotions, Potions and Explosions show!

Sue demonstrates some of the very familiar chemical elements and what can happen when you bring them together. Prepare for lots of audience participation, mess, fun and, of course, EXPLOSIONS! Links with our 'Elements - from Actinium to Zirconium' exhibition."



explore/engage/enjoy



SCIENCE IN SOCIETY

Secrets of an FX Kitchen

DATE	Sunday 26 February	TIME(S)	3PM (90 mins)
VENUE	Black Box, 18-22 Hill Street, Belfast	SUITABILITY	8+
ADMISSION & BOOKING £6. Book via nisciencefestival.com			

Titanic Creative make-up artists will take you through the art of creating realistic guts and gore for SFX make-up, using a range of ingredients found in your kitchen cupboard! You would be surprised how food can be used to create incredibly realistic effects - using the right colors, mixes and consistencies you can make your own fake blood, monster skin, guts and even zombie make-up! Join us for this session on how to create your own SFX at home, perfect for fancy dress and Halloween (NB* not for the faint-hearted, contains gore!)



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There are many international opportunities in science for individuals and organisations through the British Council. We link scientists globally, encourage grassroots discussion and promote science in education.

Our work in public engagement includes FameLab, a competition which showcases upcoming talent in science communication and engages the public.

In higher education, the IAESTE programme provides STEM students with international, paid work experience. It also provides employers with access to highly skilled students from over 80 countries. In addition, science and innovation partnerships are developed under The Newton Fund, to promote the economic development and welfare of people in partnering countries and beyond.

Schools can also get involved in international science work through partnerships and staff mobility in programmes like eTwinning, Erasmus+ and Connecting Classrooms.

<http://nireland.britishcouncil.org>

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AT A GLANCE GUIDE

WEDNESDAY 15 FEBRUARY (PAGE 5)

Anything but Bland	Ulster Hall, Belfast	6.30pm & 8.30pm	Art & Science
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THURSDAY 16 FEBRUARY (PAGES 16-22)

NI Science Festival Roadshow	South West College, Dungannon	9pm	Science Communication
Whose Head?	Ulster Museum, Belfast	12pm	Natural World
Zombie Science: Worst Case Scenario	Black Box, Belfast	12pm & 3pm	Mind & Body
Pioneering Science at Queen's	Whitla Hall, QUB	4pm	Science Communication
The Geography of Food & Drink in NI	School of Natural & Built Environment, QUB	6pm	Food For Thought
The Stress Test	Ulster University, Belfast	6pm	Mind & Body
What's Your Beef?	Bullitt Hotel, Belfast	6pm	Food For Thought
Ecological Tales from a Plant Accountant	Open University, Belfast	6.30pm	Natural World
Are There Any Aliens Out There?	Ulster Museum, Belfast	6.30pm	Space
Intelligent Beer	Brewbot, Belfast	7pm	Food For Thought
Irish Whiskey: The Journey From Grain to Grass	Bullitt Hotel, Belfast	7.30pm	Food For Thought
Bright Club Belfast	Black Box, Belfast	8pm	Science Communication
Weird Science	Strand Arts Centre, Belfast	8.30pm	Science Communication

FRIDAY 17 FEBRUARY (PAGES 23-25)

NI Science Festival Roadshow	South West College, Enniskillen	10am	Science Communication
Building Tropical Plant Cells in Minecraft	Botanic Gardens, Bowling Pavilion	10am, 11.45am & 2pm	Natural World
Bugs, Birds, Beasts & You	Ulster Museum, Belfast	10.30am	Natural World
Roald Dahl's Marvellous Medicine	Black Box, Belfast	12pm	Mind & Body
Zombie Science: Worst Case Scenario	Playhouse, Derry/ Londonderry	12pm & 3pm	Mind & Body

Going Potty With Point Clouds	School of Natural & Built Environment, QUB	12.30pm	Tech & Digital
Artbotics: Curious Electronic Eyes	Foyle Arena, Derry/Londonderry	1pm	Engineering & Robotics
To Stone Age Tools & Paint	School of Natural & Built Environment, QUB	1pm	Natural World
The Emergence of E-textiles	The MAC, Belfast	1pm	Art & Science
Fun With Ancient Coins	Archaeology & Palaeoecology Centre, QUB	3.15pm	Natural World
An Unexpected Evening with Roald Dahl's Doctor	Black Box, Belfast	8pm	Mind & Body
SATURDAY 18 FEBRUARY (PAGES 26-39)			
Future17: Teen Hackathon	Titanic Belfast	9.30am	Tech & Digital
NI Science Festival Roadshow	Southern Regional College, Newry	10am	Science Communication
IM HAPPY - Technology Family Fun Day	Diamond Shopping Centre, Coleraine	10am	Tech & Digital
The Wonders of the Natural World	Exploris Aquarium	10am	Natural World
Understanding White Balance	Belfast Exposed	10am	Art & Science
Parklife Saturday Club	Fullerton Park Pavillion, Belfast	10am	Natural World
The Science of Photography	Titanic Quarter	10.30am	Art & Science
Save Our Squirrel - Plant A Tree	The Lookout, Mount Stewart, Newtownards	11am	Natural World
Launch Pad Workshops	Black Box, Belfast	11am & 1.30pm	Art & Science
Little Legends	Easons, Foyleside Shopping Centre, Derry/Londonderry	11am	Art & Science
Digital Creativity	The Gasyard, Derry/Londonderry	11am	Tech & Digital
Animal Bones From Archaeological Sites	Archaeology & Palaeoecology Centre, QUB	11am & 12pm	Natural World

AT A GLANCE GUIDE

Future Artist-Makers: Instrument Making Workshop	Nerve Visual Gallery, Derry/Londonderry	11am	Tech & Digital
Dr Adam Rutherford & Guests	Medical Biology Centre, QUB	12.30pm	Mind & Body
Dr Megaphone's Irish Jaunt	The Gasyard, Derry/Londonderry	1pm & 3pm	Science in Society
Chelyabinsk Day: Meet The Meteorites	Ulster Museum, Belfast	1pm	Space
Know Your Enemy	Centre For Experimental Medicine, QUB	1pm	Mind & Body
Cracking The Code: The Genetics of Superheroes	Titanic Belfast	1pm	Mind & Body
The Thomsons of Belfast	The Old Museum Building, Belfast	2.15pm	Maths & Physics
The Celts with Prof Alice Roberts	Ulster Museum, Belfast	3pm	Natural World
VJ Workshop	Black Box, Belfast	3.30pm	Art & Science
King Kong Company	Black Box, Belfast	8.30pm	Art & Science
SUNDAY 19 FEBRUARY (PAGES 40-48)			
The Wonders of the Natural World	Exploris Aquarium	10am	Natural World
Exploring The Depths	Titanic Belfast	10am	Natural World
Food Glorious Food!	Titanic Belfast	11am	Food For Thought
Ugly Animals	Playhouse, Derry/Londonderry	12pm & 3pm	Natural World
Dinosaurs	Ulster Museum, Belfast	12.30pm, 2pm & 3.30pm	Natural World
How To Dismantle A Straight Line	Black Box, Belfast	1pm	Maths & Physics
Future Artist-Makers: Paper Plane Making Workshop	Nerve Visual Gallery, Derry/Londonderry	1pm	Engineering & Robotics
The Incredible Unlikelihood of Being	Whitla Hall, QUB	1pm	Mind & Body

My Place In Space	Playhouse, Derry/ Londonderry	1.30pm	Space
Bones & Burials: People in the Past	School of Natural & Built Environment, QUB	2pm	Mind & Body
The Science of Singing	Sonic Arts Research Centre, QUB	2pm	Tech & Digital
Sonic Funfair	Sonic Arts Research Centre, QUB	3pm	Tech & Digital
Spatial Music Concert	Sonic Arts Research Centre, QUB	3.30pm	Tech & Digital
Helen Sharman - Britain's First Astronaut	Whitla Hall, QUB	4pm	Space
Open Jack Night	Sonic Arts Research Centre, QUB	5.30pm	Tech & Digital
In Limbo (film)	Sonic Arts Research Centre, QUB	7.30pm	Tech & Digital

MONDAY 20 FEBRUARY (PAGES 49-51)

Winter Tree Trail	Botanic Gardens, Bowling Pavilion	11am	Natural World
Future Transport: Who's in the Driving Seat?	The MAC, Belfast	6.30pm	Engineering & Robotics
Stargazing at Queen's	Lanyon Building, QUB	6.30pm	Space
The Real Urban Jungle	The ARC 7 Donegall Street Place	6.30pm	Natural World
Two-Dimensional Materials: The Science of Flatlands	Bell Lecture Theatre, QUB	6.30pm	Maths & Physics
Ice Ages of Early Earth	Ulster Museum, Belfast	7.30pm	Earth & Elements
Moon (film)	Nerve Centre, Derry/ Londonderry	7.30pm	Space
Cultured Club Fermentation	Black Box, Belfast	7.30pm	Food For Thought
Mensa Magnificent Monday Quiz	Black Box, Belfast	7.30pm	Science Communication
Soaps & Suds	Donaghmore Historical Society, Donaghmore	8pm	Science in Society

AT A GLANCE GUIDE

TUESDAY 21 FEBRUARY (PAGES 52-58)

Food Fraud Detectives	Elmwood Hall, QUB	12.30pm	Food For Thought
We Come in Peace: Aliens in Popular Science Fiction	Bell Lecture Theatre, QUB	6pm	Space
The Implications of Leaving the EU on STEM in NI	Parliament Buildings, Stormont, Belfast	6pm	Science in Society
Matrix Science Poetry Competition	Black Box, Belfast	6.30pm	Art & Science
Why Visit Mars and What We Might Find There?	Ulster Museum, Belfast	6.30pm	Space
Save Our Squirrel - Plant A Tree	The Lookout, Mount Stewart, Newtownards	11am	Natural World
Sir Bernard Crossland Lecture 2017	Riddel Hall, QUB	6.30pm	Engineering & Robotics
Can You Die From A Broken Heart?	Black Box, Belfast	6.30pm	Mind & Body
Robochallenge	South Dining Hall, QUB	7pm	Engineering & Robotics
Stargazing Open Night	Armagh Planetarium	7pm	Space
The Mediterranean Diet: What Makes Us So Healthy?	The Academy Restaurant, Belfast	7pm	Food For Thought
Another Earth (film)	Nerve Centre, Derry/Londonderry	7.30pm	Space
The 'Sustainable' Menu	Browns Restaurant, Derry/Londonderry	8pm	Food For Thought

WEDNESDAY 22 FEBRUARY (PAGES 59-64)

Food Fraud Risk and Resilience	Elmwood Hall, QUB	9.30am	Food For Thought
The Stories in a Pollen Grain	Archaeology & Palaeoecology Centre, QUB	11am	Natural World
Mew To TQ: Lighthouse Technology	W5, Belfast	2pm	Engineering & Robotics
In Our Element: In Touch With Science	Derry Central Library, Derry/Londonderry	2.30pm	Earth & Elements
The Open Mapping Data Challenge	School of Natural & Built Environment, QUB	6pm	Earth & Elements

Scanning The Horizon: The Health of a Nation	Queen's Film Theatre, Belfast	6pm	Mind & Body
Exploring The Red Planet	David Keir Building, QUB	6.30pm	Space
The Entrepreneurial Scientist and the Sustainable Development Goals	Catalyst Inc, The Innovation Centre, Belfast	6.30pm	Science in Society
Tenx9: The Final Frontier	Black Box, Belfast	7pm	Science Communication
Particle Fever (film)	Nerve Centre, Derry/ Londonderry	7.30pm	Maths & Physics
Food & Wine Pairing Evening	Direct Wine Shipments, Belfast	7.30pm	Food For Thought
Coffee Culture Chemistry	Bullitt Hotel, Belfast	8.30pm	Food For Thought

THURSDAY 23 FEBRUARY (PAGES 65-70)

The Magic of Plants in Close Up	Botanic Gardens, Bowling Pavilion	11am	Natural World
Can Machines Ever Truly Be Creative?	Ulster Museum, Belfast	1pm	Engineering & Robotics
Marcus du Sautoy - What We Cannot Know	Ulster Museum, Belfast	4pm	Maths & Physics
Jack Kerr Memorial Lecture with Bettany Hughes	Ulster Museum, Belfast	6.30pm	Science in Society
Engineering Futures	Ulster University, Jordanstown	6.30pm	Engineering & Robotics
Turing Lecture 2017	Belfast City Hall	6.30pm	Tech & Digital
Mapping Mars	School of Natural & Built Environment, QUB	7pm	Space
A Taste of Things to Come	Merchant Hotel, Belfast	7.30pm	Food For Thought
Samsara (film)	Strand Arts Centre, Belfast	8pm	Natural World
What's Your Poison?	Black Box, Belfast	8pm	Food For Thought

FRIDAY 24 FEBRUARY (PAGES 71-73)

Modelling Ritual Worlds in Prehistory	Archaeology & Palaeoecology Centre, QUB	12.30pm	Earth & Elements
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AT A GLANCE GUIDE

The Battle of Predators & Beasts	Botanic Gardens, Bowling Pavilion	2pm	Natural World
BBC Make It @ NISF	Skainos Centre, Belfast	3pm	Science in Society
Resilience: Everyday Magic	Ulster University, Belfast Campus	6.30pm	Art & Science
Food Integrity - The Nuclear Option	David Keir Building, QUB	6.30pm	Food For Thought
LaTe LaB 3	Ulster Museum, Belfast	7pm	Earth & Elements
What's Your Poison?	Playhouse, Derry/Londonderry	8pm	Food For Thought
SATURDAY 25 FEBRUARY (PAGES 74-81)			
NI Science Festival Roadshow	Foyle Arena, Derry/Londonderry	10am	Science Communication
Parklife Saturday Club	Botanic Gardens, Bowling Pavilion	10am	Natural World
Have A Go: Bird Box Making Workshop	Mount Stewart, Newtownards	10am	Natural World
Travel 10,000 Years In An Hour	Archaeology & Palaeoecology Centre, QUB	10am	Earth & Elements
AFBI Open Day	AFBI Hillsborough Research Farm	10am	Food For Thought
Off The Rails Trail	Titanic Quarter, Belfast	10.30am	Engineering & Robotics
BBC Make It @ NISF	Skainos Centre, Belfast	11am	Science in Society
Little Legends	Easons, Foyleside Shopping Centre, Derry/Londonderry	11am	Art & Science
Game of Stones: Rocks, Fossils, Earthquakes and Volcanos	Ulster Museum, Belfast	11am	Natural World
Dye Tracing Experiment	Marble Arch Caves, Florencecourt	11am	Earth & Elements
Dr Niamh Shaw	Armagh Planetarium	1pm & 2pm	Space
A Taste of Flavour SenseNation	Black Box, Belfast	2pm & 4pm	Food For Thought
Viticulture & Vinification Workshop	Direct Wine Shipments, Belfast	2pm	Food For Thought
Rebel Science	Crescent Arts Centre, Belfast	2pm	Science Communication

In Conversation with Greg Wilson	Black Box, Belfast	6pm	Art & Science
SUNDAY 26 FEBRUARY (PAGES 82-84)			
Belfast's Buzzing	Ulster Museum, Belfast	11am	Natural World
Physics Busking	St George's Market, Belfast	11am	Maths & Physics
Lotions, Potions & Explosions	Ulster Museum, Belfast	12.30pm	Earth & Elements
In Conversation: Jocelyn Bell Burnell & Jim Al-Khalili	Whitla Hall, QUB	2pm	Maths & Physics
A Taste of Flavour SenseNation	Playhouse, Derry/Londonderry	3pm	Food For Thought
Secrets of an FX Kitchen	Black Box, Belfast	3pm	Science in Society
John Bell Lecture with Jim Al-Khalili	Whitla Hall, QUB	4pm	Maths & Physics
ONGOING THROUGHOUT THE FESTIVAL (PAGES 6-15)			
Michael Hanna: Predictable Contact	Naughton Gallery, QUB	Various	Art & Science
Makeshop	Belfast City Centre	Various	Tech & Digital
The Silent Science Roadshow	W5, Belfast	Various	Science Communication
The Sounds of Science	ArtisAnn Gallery, Belfast	Various	Art & Science
Reassembled, Slightly Askew	The MAC, Belfast	Various	Art & Science
Antonyms of Chaos	Garden of Reflection, Derry/Londonderry	Various	Art & Science
International Images For Science	Millennium Forum, Derry/Londonderry	10am	Art & Science
Lasers Live	Ulster Museum, Belfast	10.30am	Maths & Physics
Elements Exhibition	Carrickfergus Museum & Civic Centre	11am	Earth & Elements
Baby Sensory Space Adventure	Various Venues Across NI	Various	Space
W5: Waste Watchers	Various Venues Across NI	Various	Science Communication

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