



gravity  
fields

festival 2014  
24/28 September

Review

A colossus of an event

Inspired by Sir Isaac Newton  
- Father of Modern Science

# Looking back...

Gravity Fields Festival 2014 was a five day adventure of outdoor arts and family events, exhibitions, theatre, music, heritage walks, a packed talks programme, and numerous other arts, science and heritage activities ... all in the name of Sir Isaac Newton.

Its success was testament to the ongoing appetite for an event celebrating the local area's links to Newton and with the aim of putting 21st Century South Kesteven on the map.

Organisers South Kesteven District Council welcomed eminent speakers including professors Valerie Gibson, Rob Iliffe, Mark Miodownik, Richard Fortey, Andrew Hunter, Nigel Allinson and Dr Harry Cliff, Dr Suzy Lishman, Dr Afzal Ansary and Dr Sarah Dry. Brian Cox made a live virtual appearance at the festival as did the facilities at CERN. Other partners included the Royal Photographic Society and the Royal Society. Arts companies came from around the UK with special guests from Spain.

Gravity showcased astronomy, space science, climate engineering, proton therapy, scientific imaging, women in science, life at the Large Hadron Collider ... even celebrating local produce with the science of food and drink!

Gratitude goes to enthusiastic local businesses, heritage groups, venues, schools, Grantham College and many other partners for their participation – plus Arts Council England for its grant support, enabling a focus on outdoor events; the Heritage Lottery Fund funding supporting the partner project - Lincolnshire's Age

of Scientific Discovery; Trinity College Cambridge for support of science outreach and education events; the Science & Technology Facilities Council for funding CERN Live; Institute of Physics for support of Space Station Grantham and regional partners BBC Radio Lincolnshire, National Trust, National Space Centre and Cummins Generator Technologies.

The festival attracted an audience of 65,000 to over 100 events during its five day duration. 132 artists from 32 visiting companies were involved in creating performance and arts activities at the festival, with over 10 new outdoor performances commissioned. Around 1,000 community participants from 30 schools and community groups took part in workshops prior to the events over a five month period which led to participation in the outdoor performances. The schools programme welcomed over 2,894 school children to the education programme.

Trinity College Cambridge supported festival science outreach and CERN Live was supported by the Science & Technology Facilities Council, and additional funding and support came from BBC Radio Lincolnshire, National Trust and Cummins Generator Technologies.

Our audience reach was extensive, both for schools and festival goers with a broad range of sponsors and supporters and the festival delivered an economic benefit to Grantham of around £500,000.

## We welcomed three eminent patrons



**Professor Valerie Gibson**

The most senior woman scientist at Trinity College Cambridge, Grantham born and Trinity College's community governor at Newton's old school, the King's School Grantham.



**Professor Rob Iliffe**

Leading Newton historian and heads up the joint Sussex and Cambridge Universities' Newton Project: dedicated to publishing online all of Sir Isaac Newton's writings - whether printed or not.



**Dallas Campbell**

The television presenter and television and stage actor, enjoying a high profile in science broadcasting with primetime programmes.



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Supported by  
**IOP** Institute of Physics

Supported by  
The National Lottery®  
through the Heritage Lottery Fund



# Highlights

## SCIENCE EVENTS AND ACTIVITIES

**Gravity Fields Festival** 2014 festival schools programme included science shows, exhibitions, talks, workshops and science outreach activities from universities and science organisations around the UK.



### Science Fair and Schools

Three days of exploration and discovery for schools - with a special family science fun day on Saturday. Trinity College Cambridge funded the festival's science outreach programme.

Demonstrators included the Science Museum, science made simple, Matthew Tosh, the Royal College of Veterinary Science, University of Lincoln, the University of Hull, Cool Primary Science and Newcastle University.



### International Images for Science Exhibition

An exhibition of outstanding science images drew audiences to the National Trust's Belton House, backed by a talk from exhibition curator Dr Afzal Ansary on his life's work in medical and scientific imaging photography.



### Science Futures

A question and answer session with professors Valerie Gibson, Andrew Hunter and John Burn plus Dr Melody Clark from the British Antarctic Survey.



### Family Science

Science demonstrations from numerous partners including the Science Museum, National Space Centre, University of Cambridge, Royal Veterinary Collage and many science organisations and universities around the UK.

# Highlights

## Outdoor Arts

### Giants of Science...

was an unforgettable night when Grantham became one Giant laboratory.

Giants of Science walked again ...

**Michael Faraday:** electromagnetism and electrochemistry.

**Marie Curie:** the first woman to win a Nobel Prize.

**Sir Isaac Newton:** physicist, mathematician, and philosopher.

**Galileo Galilei:** proposed the theory that earth revolved around the sun.

**Albert Einstein:** general theory of relativity.

**Rosalind Franklin:** discovery of the structure of DNA.

**Alan Turing:** wartime code-breaker and inventor of the Colossus computer.

Over 25 schools and community groups took part in the arts workshops leading up to the festival and the processions and outdoor laboratories.

I am absolutely loving the atmosphere here. A real buzz and excited audiences  
**Mathew Tosh@mathewtosh**

Amazing scenes tonight in Grantham @gravityfields  
**Nikki Goldblatt**  
@nikkigoldblatt



Colossus emerged from a laboratory to stride around the town centre for a stunning finale.

### Dizzy O'Dare

with an outdoor show 'The Wonderful World of Mr E'.

A wonderful evening - brilliant dancers earlier on in Market Square. Bravo! **Mark Neal @migrant\_press**



## Chasing the Eclipse

A dance and projection spectacle from the Chantry Dance Company.



## Space Station Grantham

Supported by the Institute of Physics, rockets 'launched' from St Wulfram's Church .. transformed into a space station. An indoor arts highlight was the IOU Volatile Light installation.



## Gandini Juggling

They performed their Newton inspired show 'Smashed' both indoors and outdoors.

# Highlights

## Indoor Arts and Education



## Death of an Astronaut

Dr Suzy Lishman's 'autopsy' into the death of an astronaut explained much about how the human body adapts to zero gravity after months in space.



## Metropolis - with live organ accompaniment

1927 German expressionist science fiction classic with live organ playing by Simon Johnson, organist of Saint Paul's Cathedral.

## Volatile Light

Light and sound stunned festival goers with a miniature universe thanks to a Volatile Light display from IOU.

## Music

The festival hosted three concerts aimed at completely different audiences; a free family concert of Science Fiction film music; a harpsichord recital of Bach's Goldberg Variations, and a newly commissioned Cantata in three parts written by three young professional composers.

## Wee Stories Theatre Company's One Giant Leap

The Scottish Wee Stories Theatre Company's opened its national tour with shows in Grantham and Stamford.

# CERN LIVE...

**bringing the science of CERN to life  
Curated by Dr Harry Cliff**

**Venue: St Wulfram's Church**

CERN Live brought together scientists who work at CERN LHC, with live links to CERN and Brian Cox, a newly created touring exhibition, and a series of interactive displays, video, talks and live links over two days of the festival.



**“**CERN Live, curated by Dr Harry Cliff, in St Wulfram's Church was a tremendous success. To fill a large church with particle physics is an absolute first! The talks by world-class scientists, the live links to the ATLAS control room at CERN and to Professor Brian Cox in his kitchen in discussion with Dallas Campbell, mixed together with a dedicated team of scientists explaining the hands-on demonstrations and science to the visitors, was an extraordinary and unforgettable experience. **”**

Professor Val Gibson

## What happened

Live virtual question and answer interview link with Professor Brian Cox, hosted by festival patron Dallas Campbell

Virtual visit to ATLAS facility at CERN

Dr Harry Cliff looking ahead to the 2015 re-start of the Large Hadron Collider with almost double its previous energy - across a frontier into an unknown world

Professor Tara Shears: The Matter with Antimatter - how it shaped the universe after the Big Bang

Professor Jon Butterworth. Smashing Physics; the discovery of a new Higgs boson particle - a science milestone - and CERN's amazing machines, the people, the science, the politics, and the consequences

Ten scientists hosted science demonstrations over the two days of the exhibition - with interactive displays from Harwell and the University of Cambridge including a model of the ATLAS experiment, a Van der Graaf accelerator and a superconducting racetrack

 Trinity College Cambridge 



Science & Technology Facilities Council

more than  
**3,000**  
visited; both schools and the general public

James Bould @bouldie "Great afternoon at @gravityfields and @Cernlive. Really enjoyed the Q&A with @profbraincox and @dallascampbell"



# Lincolnshire's Age of Scientific Discovery

Lincolnshire's Age of Scientific Discovery (LAOSD) was met with incredible enthusiasm from the local Grantham community, local historians, volunteers and nationwide academics - tackling a belief that the area's rich history is somewhat invisible to visitor and locals alike.

Between August 2013 and November 2014 more than 60 core volunteers worked across the thematic strands. Over 200 volunteers got involved through presentations, exhibitions and heritage events and a further 5,000 attended events and exhibitions during Festival.

Partners included Grantham College, Grantham Civic Society, Woolsthorpe Manor, National Trust, Grantham Dramatic Society, Grantham Museum and Lincolnshire University of the Third Age.



**“A lot of people in the town are really passionate about making the history of the area and the town, and its links with Newton, more visible and accessible”**  
**Helen Pack, Grantham Dramatic Society**

**“Grantham is full of so much history but it's often invisible to the average visitor, it would be wonderful to bring some of those stories to life”**  
**Marilyn Campbell, Grantham Civic Society**

# Highlights:

'Newton's Grantham: Life in A Puritan Town' was based on the U3A volunteer archive research.

**Newton's Grantham**, Grantham's Newton enabled volunteers to present further engaging and dynamic interpretations on the life of Newton in 17th century Grantham.

**Hannah's Herbs** was produced by National Trust volunteers to highlight the herbs that Newton's mother would have used.

**Newton: a walk through time** told the story of Newton's life as a child in Grantham.

**The Old Dogg at the Mint**, a community play researched and written by the Grantham Dramatic Society.

**Newton's Footsteps**. Long distance walk specialists, Ali Pretty and Richard White designed and led walks creatively exploring Newton's family footsteps.

**Newton Tree Party** social media campaign combined with Newton's Footstep's to create comments and interaction from around the world. [www.newtontreeparty.co.uk](http://www.newtontreeparty.co.uk)

**Tour Guides of the Future** designed and led their own Newton heritage tours.



# Media gravitates to Newton

Gravity Fields Festival really hit the headlines in 2014, attracting coverage on television, radio, newspapers, lifestyle magazines, web sites and blogs.

The festival London launch in April at the Royal Society – complete with a costumed Isaac

Newton, direct descendants of Newton's great great uncle William Newton and the then science minister David Willetts – drew Yorkshire's Calendar Television cameras (see picture right) to the capital for great coverage regionally. Coverage included:



**BBC Radio Lincs**

**Grantham Journal Stamford Mercury**

**ITV Calendar News**

**BBC East Midlands News**

**Martinbrookes.blogspot.com Horncastle News**

**Co-op magazine Best Western hotels website**

**Hart's Property magazine Lincolnshire Life**

**Lincolnshire Pride Primary Times**

**Peters Fraser and Dunlop literary Village Link magazine  
and talent agency website Hull Dail Mail – What's On Guide**

**Grimsby Telegraph – What's On Guide**

**Sleaford Standard – What's On Guide**

**The Royal Society website Tattershall Lakes – What's On**

**Transport iNet Cantata Dramatica Online**

**Lincs FM and Rutland Radio Visit South West Lincolnshire**

**University of Nottingham website**



**14,536**

GRAVITY FIELDS FESTIVAL WEB SITE VISITS IN SEPTEMBER ALONE

**12.5%**

OF THAT STRAIGHT FROM SOCIAL MEDIA POSTS



FACEBOOK LIKES

WERE UP BY

**91.5%**

BETWEEN 1 JUNE AND 30 SEPTEMBER



**2,723**

NEW FOLLOWERS ON TWITTER SINCE 30 JUNE 2014



**409**

OF WHICH DURING THE FESTIVAL WEEK ALONE

# Gravity Fields Receptions and Fringe Events



Festival Launch



Lincolnshire Ploughman's



Angel & Royal Closing Dinner

Events kicked off Gravity in style and our fringe programme was diverse and supportive, from a talk on the Life and Times of Guy Gibson to a haunting installation based on Shakespeare's tragic Ophelia within the parish church where Newton was baptised.

The sell-out Gibson talk on a flying ace who won a VC for the 607 Squadron Dambuster's Raid took place within former Bomber

Command HQ at St Vincents - invoking the county's rich aviation heritage.

Science and history talks added to fringe variety, with markets, an autumn fair in the streets of Grantham, a business funding and networking event, and music from folk rock, country and bluegrass to jazz and gypsy-folk.

**Feeling inspired. It is such an honour to be at #newtonparty  
Grace Williams @g\_williams**



Moveable Feast



Guy Gibson



Ophelia's Ghost

# Join us to celebrate the next Gravity Fields Festival 21-25 September 2016

[www.gravityfields.co.uk](http://www.gravityfields.co.uk)

Had an excellent evening with the  
astronomers @Gravityfields tonight.  
Loved it and brilliant light display.  
James Martin @jamesmartin13

Picture shows Space Station Grantham Projection on St Wulfram's Church



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