

CUMBERLAND LODGE

Programmes 1991–2017

2017 - Mathematics, Arts and Gaming

Henrik Jeldthoft Jensen (Imperial): How Improvisation Sparks the Music and the Participating Brains.

Michelle Yong (King): Maths for Fun: Using Data to Make Great Games

Reimer Kuehn (KCL): Finding Gold The Golden Ratio in Mathematics, Architecture, Arts & Nature

John Silvester (KCL): The Ill Tempered Mathematician - A Talk on Musik

Danny Chapman (Naturalmotion): Maths in motion: Procedural animation in video games

Erica Tysaon (IMA): Careers with Mathematics

Debate (St Catherines Session): This house believes in an impending global conflict

2016 - Statistics, Big Data, Machine Learning, And All That

Simon Worgan (Jagex): Bayesian Player Behaviour Modelling for Runescape Chronicle

Fabrizio Silvestri (Yahoo): Context- and Content-Aware Embeddings in Sponsored Search

Peter Smith (Statistics, Southampton Univ): Statistical Challenges when Analysing Administrative Data

Thore Graepel (Google): AlphaGo: Mastering the game of go with deep neural networks and tree search

Michael Pitt (Mathematics, KCL): Statistical Problems in Finance and Related Fields

Erica Tyson (IMA): Careers with Mathematics

Debate (St Catherine's session): This house believes that we have the right to free speech

2015 - Mathematics in the World of Finance

John Crosby (Grizzly Bear Capital): Quanting: What I wish I had known 20 years ago and what I hope to know in 20 years time.

Manuel Breuning (Black Rock Investment): Financial data in the real world

Andrea Macrina (Mathematics, UCL): Debt

Philip Treleaven (Computer Science, UCL): Opportunities in Finance from Goldmans to Bitcoin

Kartik Anand (Bank of England): Stress Testing

Reimer Kuehn (Mathematics, KCL): Systemic Risk

Debate (St Catherine's session): Should the Death Penalty be Introduced in the UK?

2014 - Mathematics in the World of Gaming

Joe Barnard (COO International Federation of Poker)

The sporting side of poker

Richard Pinch (GCHQ)

Games Cryptographers Play

Rob Eastaway

Six Beautiful Maths Curiosities

Peter McBurney (Informatics, KCL) :

Some Games in Computer Science and Artificial Intelligence

David Singmaster (Mathematics, Southbank University):

Luca Pacioli's De Viribus Quantitatis - the world's earliest recreational mathematics treatise

Leo Li (Monitor): The Healthcare Industry - an application of Statistics

2013 - Mathemaics: Predicting the Unpredictable

Robin Wilson - (Mathematics, Pembroke College, Oxford)

Thomas Archer Hirst -- Mathematician Xtravagant

Simon Byrne (Mathematics, University College London)

Who evaluates the predictors? How to score your weather forecaster

Victoria Gardner (Ageas Protect Limited)

Insurance: Modelling the unpredictable

John Silvester (Mathematics, King's College London)

Primes and Polygons

Cristin Buescu (Mathematics, King's College London)

Thinking the unthinkable in Financial Mathematics

Reimer Kuehn (Mathematics, King's College London)

Risk and the Mathematics of Falling Dominoes

Debate (St Catherine's session) The UK in the EU - in or out?

2012 - Mathematics and the Arts

Hendrik Jeldthoft Jensen Mathematics is Painting Without the Brush;

Painting is Mathematics Without the Chalk

Alexander Pushnitski Strings, Drums, and Eigenvalues.

Camille Rodskjaer Perspective and Painting. Intertwining Mathematics and Art in the Renaissance

John Silvester The Ill-Tempered Mathematician

Ton Coolen The art of finding the simplest model for a complicated phenomenon: the Minority Game

Reimer Kuehn: Finding Gold

Debate Is there too much emphasis on teaching science in education?

2011 - Mathematics and Intelligence

Robin Wilson Problems with schoolgirls
David Acheson Do Mathematicians need to be Intelligent?
Isaac Perez Castillo The easiest hard problem
Richard Pinch Modern Cryptography Mathematics at GCHQ Today
Prof Peter Cameron From Magic Squares to Sudoku
Gordon Woo Mathematical methods in terrorism risk modelling.
Lane Hughston Mathematical Models for Market Intelligence
Debate: Freedom of Information: Is freedom of information dangerous to society? Yes, stop leaking. No, we all have the right to know.

2010 - Mathematics and Society

Colin Wright: Juggling: Theory and Practice
David Singmaster: Adventures in Recreational Mathematics
William Shaw: Why Old People Are Dangerous: Extreme Events and Crises in Financial Mathematics
Rob Eastaway: Ten Ways to Win a Maths Bet in a Pub
Robin Wilson: Mazes, Maps and Molecules
 &Lewis Carroll in Numberland (late ad hoc addition to prog.)
Reimer Kuehn: From Neurons to Brains
 - From Societies of Brains to Brains of Societies ?
Debate: Does Technology Help or Hurt Education?

2009 - Mathematics and Strategies

Joe Barnard: Mathematics of Poker
Simon Singh: The Making of the Documentary on Fermat's Last Theorem
Anita Anand: How the Media Deal with News and Current Affairs, Including the Sciences
Marcus Giaquinto: Crossing Curves in Proofs
Simon Singh: TV Screening of the Documentary
Cyril Isenberg: On Minimal Surfaces Soap Bubbles and Soap Films
John Haigh: How likely is that?
Debate: State School Education vs Public School Education

2008 - Mathematics and Skills

Colin Wright: Juggling - Theory and Practice
John Haigh: How likely is that?
David Singmaster:
Chris Budd:
Prof. Davies: Why Platonism is a bad idea in Maths
Joe Barnard: Mathematics of Poker

2007 - The Magic of Mathematics

Robin Wilson: Yea, Why Try Her Raw Wet Hat?

Wilfrid Hodges: Geometry of Music

David Acheson: Mathematics, Magic and the Electric Guitar

Peter Saunders: Mathematics and Climate Change

David Crawford: It's a kind of Magic

Robin Wilson: How to Win a Million Dollars: Prime Time Mathematics

Debate: This House Believes that Great Britain is Multi-Cultural

2006 - Sadly no visit!

2005

Sir Christopher Zeeman: Plimpton 322

Peter Ransom: Yo-Ho Ratio

Colin Wright: Juggling - Theory and Practice

Joe Barnard: Is Maths an Ace up your Sleeve?

Cyril Isenberg: Minimum Surfaces - Analogues from Dido to Plato

David Singmaster: History of Polyhedra

Discussion: ??

2004 - Maths and Gaming

Fred Armitage: Mathematical Fun with Puzzles

David Chillingworth: Chaotic Dynamics

Tony Gardiner: Primes and Polygons

Peter Saunders: The Maths Behind Poker

Richard Wakeford: Not Much Maths in Rural Policy

Trevor Hawkes: Gaming on a Video Platform

St Catherine's Session: ??

2003 - Mathematics in Sport and Pastimes

David Singmaster: Old and New Recreations in Mathematics

Tom Roper: The Mathematics of Bowls

Robin Wilson: The Four Colour Problem

Prof Broomhead: A Gambler's Tale

Robin Wilson: Alice in Cumberland

Colin Wright: Juggling - Theory and Practice

Discussion: Is it the Job of the West to Police the East?

2002 - Maths at the Movies

A Jeffrey: Harry Potter
Lynda White: Diamonds are Forever
Simon Singh: Enigma
Cyril Isenberg: Magic of Maths before, during and after the Movies
Alan Slomson: ??
John Silvester: The Ill-Tempered Mathematician
Discussion: Mathematics will destr0y the World! Discuss.

2000 - Mathematics through the Millennium

David Singmaster: Old and New Recreations in Maths
John Reeve: Topology and Set Theory
Chris Robson: Sound as a Bell
Frank Berkshire: Floating, Spinning and Tumbling
Gareth Hartwell: Does a Maths Background Help in the Modern Computing Industry?
Robin Wilson: Stamping Through the Millennium
St Catherine's Session:

1999 - The Manifestations of Mathematics

Colin Wright: Juggling - Theory and Practice
Cyril Isenberg: Geometry of Soap Bubbles - Blowing Bubbles
William Hartson: Chess, Weather, Psychology, The Universe and Everything
Nick MacKinnon: The Mathematical Structure of Jokes - Joking Around
Mike Lambrou: Archimedes \$2,000,000 Manuscript
Chris Wiscarson: Do Maths Degrees Work as a Career Tool?
St Catherine's Session: ??

1998 - The Diversity of Mathematics in Everyday Life

Andrew White: Raining Maths - Mathematics and Weather Forecasting
Johnston Anderson: Dominoes, Dice and Football - The Devil's Dice
Vernon Armitage: The Place of Mathematics in a General Education
John Silvester: The Maths Maestro - The Ill-Tempered Mathematician
Brian Bunday: Getting Married the Mathematical Way - The Right Choice
St Catherine's Session: ??

1997 - Mathematical Recreations

Roger Webster: The Tail of Pie

David Singmaster: Medieval Recreations in Mathematics

Robin Wilson: Maps, Mazes and Molecules

John Beasley: Some 18th Century Books on Mathematical Recreation

Michael Cornelius: Games to Play and Games to Think About

St Catherine's Session: (Provisionally) A discussion to consider whether being a good student is about passing exams.

1996 - Mathematics: Science or Art?

Peter Neumann: Mathematics as Science and Art: The Real World and the Rational World

John Baylis: Non-trivial Trivia

Peter Ransom: Geometry Through the Use of Old Instruments

Colin Wright: Juggling - Theory and Practice

John Reeve: Geometry - Science or Art?

St Catherine's Session: A discussion based on the news that higher education

1994 - Mathematics - The Dimensions

Roger Penrose: The Emperor's New Mind

John Taylor: Modelling Consciousness with Neural Networks

Felix Pirani: On Being the Right Size

Robin Wilson and Helen Gardner: Thomas Archer Hirst - Mathematician Xtravagant

Gareth Hartwell: Is the Universe Supersymmetric?

St Catherine's Session: What is this Maths Stuff and What's it all about anyway?

1993 - Mathematics: The Limits

Neil Ryder: May the Force be with you!

Roger Webster: Many Cheerful Facts about the Square on the Hypotenuse

John Reeve: Limits and Continuity in Geometry (or Bananas and Pineapple Rings)

Adam Flint (with aid of John Taylor): Can a Neural Network Solve the Unsolvable?

Sally Brailsford: Computers and Condoms - How Mathematics Can Help the Fight Against Aids

Tony Barnard: Mathematical Encounters of the Third Kind

St Catherine's Session: Student Numbers and Funding - Quantity and Quality, the Dilemma in Higher Education

1992

J K Dugdale: The Mathematics of Princes, Emperors, Presidents,
Archbishops, Schoolchildren and Students
Cyril Isenberg: Motivating Able Students
Team Works: Exercising the Mind
Brian Bunday: Getting Married the Mathematical Way
J Newby: Three Men of the Moon
John Silvester: Music - Maths for the Masses?
St Catherine's Session: Unification or Disintegration? (Bureaucracy of
the East and West)

1991 - Maths, Games and Strategies

David Singmaster: Medieval Recreations in Mathematics
Tony Gardiner: From Recreation to Re-Creation
Magical Mystery Session
Bob Laxton: Why Do Bronze-Age Corbelled Domes Stand Up?
John Silvester:
Nick MacKinnon: How to Play Strip Poker Over the Telephone
St Catherine's Debate: Do We Live in a Free Society?

Professor Chris Budd (University of Bath)

Lecture 1: Maths and the fight against crime (KS3)
Lecture 2: The maths of celtic and african art (KS3)
Lecture 3: What have mathematicians done for us? (6th form)
Lecture 4: Dancing with mathematics (KS3)
Lecture 5: 101 uses of a quadratic equation (KS4)
Lecture 6: What's the use of chaos (6th form)

Professor Marcus du Sautoy (University of Oxford)

Lecture 1: The Music of the Primes
Lecture 2: Why Beckham chose the number 23 shirt
Lecture 3: Duelling with the Monster
Lecture 4: The search for the unbreakable code