

# Gregynog 2019 Timetable

## Monday 20th May – Music Room

Time	Title	Speaker
16:00 – 16:30	Tea: Blayney Room	
16:30 – 16:40	Welcome	
16:40 – 17:40	Curing Cancer with Calculus by Integrating Information from Bench to Bedside	Helen Byrne
17:40 – 18:10	Counting Sum Systems	Karl Michael Schmidt
18:10 – 18:40	Opportunities in Mathematical Sciences at EPSRC	Joseph Westwood
19:00	Dinner: Dining Room	

## Tuesday 21st May (Also see reverse)

### Tuesday 21st May – Welsh – Writing Room

Amser	Teitl	Siaradwr
16:00 – 16:30	Modelu'r rhyngweithiad rhwng ewyn trefniedig a gwrthrych solid	Tudur Davies
16:30 – 16:50	Llif llifydd diriant ildio drwy geometregau tebyg i wythiennau	Tirion Roberts

### Tuesday 21st May – English – Writing Room

Time	Title	Speaker
17:30 – 17:50	Perverse Schobers in Algebraic Geometry	Chris Seaman
17:50 – 18:10	Effective numerical model for hydraulic fracturing	Gaspere Da Fies

## Wednesday 22nd May – Seminar Room 1

Time	Title	Speaker
8:00 – 9:00	Breakfast: Dining Room	
9:00 – 10:00	Differential equations with variable time delays	Stephen Gourley
10:00 – 10:30	Stochastic differential equations driven by fractional Brownian motion with locally Lipschitz drift and their implicit Euler approximation	Shao-Qin Zhang
10:30 – 11:00	The Support of Integer Optimal Solutions	Timm Oertel
11:00 – 11:30	Tea: Blayney Room	
11:30 – 12:00	A symmetry result for a general overdetermined boundary value problem	Friedemann Brock
12:00 – 13:00	Viruses and Geometry: Implications for virus assembly, evolution and therapy	Reidun Twarock
13:00 – 14:00	Lunch: Dining Room	

## Tuesday 21st May – English

Time	Music Room	Speaker		
8:00 – 9:00	Breakfast: Dining Room			
9:00 – 10:00	Viruses and Geometry: Models of virus architecture based on group and tiling theory	Reidun Twarock		
10:00 – 10:30	Doubly nonlocal Fisher-KPP equation: Features and peculiarities	Dmitri Finkelshtein		
10:30 – 11:00	Obstructions for the torus and proving non-toroidality	Andrei Gagarin		
11:00 – 11:30	Tea: Blayney Room			
11:30 – 12:30	Mathematical approaches to modelling and remodelling biological tissues	Helen Byrne		
12:30 – 13:00	Packings in cylinders: columnar crystals, helical viruses and hysteresis	Adil Mughal		
13:00 – 14:00	Lunch: Dining Room			
Time	Seminar Room 1	Speaker	Seminar Room 2	Speaker
14:00 – 15:00	Applications of delay differential equations: an introduction	Stephen Gourley		
15:00 – 15:30	How nearly optimal are the Watt and Chebyshev linkages?	John Pryce	A convex relaxation for IMSE optimal design in random-field interpolation models	Bertrand Gauthier
15:30 – 16:00	Tea: Blayney Room		Tea: Blayney Room	
16:00 – 16:20	Evolutionary dataset optimisation: learning algorithm quality through evolution	Henry Wilde	Generalised braid actions	Lorenzo De Biase
16:20 – 16:40	Statistical Inference for Entropy, Divergence and Renyi Information	Mehmet Cadirci	Prime Strictly Concentric Magic Squares	Anna Skelt
16:40 – 17:00	Sequential change-point detection with epidemic alternatives	Jack Noonan	The enumeration of the higher spin alternating sign matrices	Hassan Izanloo
17:00 – 17:20	Input-Distributive Persistent Homology	Alvaro Torras Casas	Particle density of the CAR algebra and particle-hole duality in continuum	Maryam Alshehri
17:30 – 17:50	The predictive potential of kernel principal components regression	Ben Jones	Near real-time calculation of submarine fault properties using an inverse model of acoustic waves	Bernabe Gomez Perez
17:50 – 18:10	Predictive Maintenance of Real Time Sensor Data	Ieuan Griffiths	A class of nonlinear Schrodinger-Poisson systems involving a nonradial charge density	Megan Tyler
18:10 – 18:30	Clinical Pathway Modelling	Emma Aspland	Distances to Lattice Points in Rational Polyhedra	Aled Williams
18:30 – 18:50	Big Data Analytics of historical Caster data for Predictive Maintenance	Rebecca Peters	Horizontal mean curvature in $\mathbb{H}^1$	Raffaele Grande
19:00	Dinner: Dining Room			