

IMS Annual Scientific Meeting 2018

University College Dublin

AUGUST 30TH-31ST

The 28th annual scientific meeting of the society was hosted by the School of Mathematics and Statistics at University College Dublin on the final Thursday and Friday in August. (This followed Women in Mathematics Day which was held on Wednesday 29th in UCD and also supported by the society.) The organisers were Chris Boyd, Michael Mackey and Pauline Mellon.

Opening welcome remarks were made by Professor Joe Carthy, principle of the UCD College of Science who encouraged members to continue their work in communicating the utility and beauty of mathematics to prospective students.

The scientific programme contained a mixture of 30 minute and 50 minute lectures and, observant of the membership, covered topics whose variety might rival the international congress. For example, we heard about blockchain protocols, connections between random matrices and enumerative geometry, Japanese lesson study, Q -reflexive Banach spaces and waves in soft tissue. (The full list of talks follows.)

Unannounced on the programme, the lecture of Professor Robin Harte on Thursday was followed by some words of tribute from our president marking the occasion of the speaker's 80th birthday as well as his many mathematical contributions. As befits such occasions, the assembly partook of chocolate cake.

Friday morning's session was comprised of students and early stage researchers where the standard of work and presentation was lauded by the members. Friday's schedule also included the society's AGM which is reported on separately in these pages.

The web page for the meeting, which includes abstracts of presented talks, is archived at

<https://maths.ucd.ie/ims2018>

The organisers are grateful to all who participated in the meeting but especially to our speakers whose lectures were given in the following sequence.

Thursday 30th August

Sarah Mitchell (UL) - *Numerical challenges in applications of Stefan problems.*

Emanuele Ragnoli (IBM Research) - *DAG based blockchain protocols. Early days, challenges and opportunities.*

Nikos Georgiou (WIT) - *A New Geometric Structure on Tangent Bundles.*

J.P. McCarthy (CIT) - *The Diaconis-Shahshahani Upper Bound Lemma for Random Walks on Finite Quantum Groups.*

Robin Harte - *Cofactor Matrix Theory.*

Thomas Hüttemann (QUB) - *Finite domination - from topology to graded algebra.*

Michel Desttrade (NUI Galway) - *Waves and Wrinkles in Soft Solids.*

Friday 31st August

Mayya Golitsyna (UCD) - *Universal Taylor Series.*

Paul Greaney (NUI Galway) - *Instabilities in Thin Dielectric Elastomers.*

Eduardo Mota Sánchez (UCC) - *Heun's equations and CMC surfaces.*

Milena Venkova (DIT) - *A new example of a Q -reflexive space.*

Aoibhinn Ní Shúilleabháin (UCD) - *Developing Mathematical Knowledge for Teaching through Lesson Study.*

Nina Snigireva (NUI Galway) - *A tale of two norms.*

Neill O Connell (UCD) - *Some new perspectives on moments of random matrices.*

Report by M. Mackey (email: mackey@maths.ucd.ie)