Reports of Sponsored Meetings

IRISH MATHS LEARNING SUPPORT NETWORK 10TH ANNUAL WORKSHOP 27 May 2016, NUI Galway

The theme of the 10th Annual Workshop of the Irish Mathematics Learning Support Network (IMLSN) Workshop was 'The key role of tutors of mathematics and statistics in Post-Secondary Education'. The aim of the event was to discuss

- a variety of aspects including professional development for tutors,
- the diverse teaching roles of tutors and the challenges they face,
- mathematics learning support centres as rich learning experiences for tutors, and
- tutoring as opportunity for postgraduate and undergraduate students to be part of the mathematics community.

47 delegates attended this workshop including tutors and lecturers involved in support of mathematics and statistics at third level, or in teaching and learning at third level education in general.

Keynote speakers on the day included Michael Grove (University of Birmingham) and Ciarán O'Sullivan (Institute of Technology Tallaght, Dublin). Michael Grove spoke in his talk (*The Strongest Link? Supporting the Teaching Assistant, Demonstrator, Marker, Advisor, Tutor, ...*) about the development of tutor training in mathematics support in the U.K. Ciarán O'Sullivan (*Staff development in Mathematics Learning Support in Ireland: where are we now and where to next?*) described approaches to tutor training made by the Irish community of mathematics and statistics support practitioners and made suggestions of how tutors' professional teaching development can be supported.

Six other talks were contributed at this one day conference, including the perspectives of tutors engaged in mathematics and statistics support, suggestions for teaching from experienced lecturers and an overview of the current situation of mathematics learning support in Ireland: *Niall McInerney and Kevin Brosnan*, Challenges for tertiary level mathematics tutors with no formal education training: The experience of two practitioners, *Ted Hurley*, 'Make it (Mathematics) stick!', *Richard Walsh*, An analysis of pedagogy of mathematics support tutors, *Cesar Scrotchi*, Tutoring in a Maths Support Centre as an enrichment experience for tutoring large groups, *Maura Clancy*, Audit of mathematics learning support in Ireland in 2015 the key findings, and *Julie Crowley*, Online e-assessment tool *Numbas* as a tutorial tool.

The workshop provided delegates with an opportunity to share ideas and experiences in supporting tutors engaged in higher education mathematics and statistics support, and to further consolidate links between academics and support staff.

Abstract of the talks and presentation are available at the IMLSN website: http://imlsn.own.ie/imlsn10nuigalway/

The organizers are grateful for financial support from the School of Mathematics, Statistics and Applied Mathematics and the Irish Mathematical Society.

Report by Kirsten Pfeiffer, NUI Galway kirsten.pfeiffer@nuigalway.ie

Adult Learning Mathematics 23rd Annual International Conference 3-6 July, 2016, Maynooth University

The three day conference focused on the following themes:

- Numeracy: A Critical Skill in Adult Education.
- The Language of Mathematics, and Language and Mathematics.
- Adults Learning Mathematics: Research, Practice and Policy.

Numeracy is acknowledged as a critical skill needed to succeed in our 21st century society. For example the Irish National Strategy for Literacy and Numeracy states (p.10): Numeracy encompasses the ability to use mathematical understanding and skills to solve problems and meet the demands of day-to-day living in complex social settings. To have this ability, a person needs to be able to think and communicate quantitatively, to make sense of data, to have a spatial awareness, to understand patterns and sequences, and to recognise situations where mathematical reasoning can be applied to solve problems. The conference endeavoured to explore the importance of numeracy in Adult Education and ways of developing numeracy in adult learners.

Language: We considered the challenges of teaching mathematics when the language of instruction is not the first language of the student (or the teacher). In addition, we focussed on the language of mathematics and how it affects teaching and or learning.

Research, Practice and Policy: We discussed aspects of research, practice and policy in relation to Adults Learning Mathematics. We were especially interested in the range of difference practices and policies employed at different levels and in different countries and in research on the effectiveness of these practices and policies.

The Keynote Speakers were

- Inez Bailey, Director of NALA, the National Adult Literacy Agency.
- Professor Raymond Flood, Gresham College.
- Professor Núria Planas, Universitat Autònoma de Barcelona
- Professor John O'Donoghue, Professor Emeritus University of Limerick.
- Professor Katherine Safford-Ramus, Saint Peters University, the Jesuit College of New Jersey

There were 19 further short talks, 12 workshops and several posters. Over 90 delegates from 12 different countries also enjoyed the National Science Museum at Maynooth University and the collection of old Mathematical and Scientific texts at the Russell Library.

Further details on both the ALM, and on the conference, including abstracts for all presentations, and some of the presentation slides are available from the conference website

http://www.alm-online.net/alm-23-maynooth/

The conference was supported by the 3U Partnership, the Department of Mathematics and Statistics at Maynooth University, Fáilte Ireland, Maynooth University, the National Adult Literacy Agency (NALA), the National Forum for the Enhancement of Teaching and Learning in Higher Education and the IMS.

Report by Ciarán Mac an Bháird and Ann O'Shea, Maynooth University

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Young Functional Analysts' Workshop 4-8 April, 2016, Queen's University, Belfast

The Young Functional Analysts' Workshop (YFAW) is an annual meeting, organised by PhD students, for early-stage researchers (mainly PhD students and postdocs) in all areas of Functional Analysis. YFAW aims to bring together young people working in Functional Analysis to interact, share ideas and experiences, present their work to a sympathetic audience, and learn about new areas of Functional Analysis from participant talks and invited talks from experienced researchers. See https://sites.google.com/site/yfawuk/.

The invited talks were:

- Dr Yemon Choi (Lancaster University): Derivations on Fourier algebras of connected groups;
- Prof Cho-Ho Chu (Queen Mary University of London): Jordan algebras in analysis and geometry;
- Dr Tatiana Shulman (IM PAN Warsaw): Completely positive maps and zero-error in quantum information theory;
- Dr Aaron Tikuisis (University of Aberdeen): C^* -algebras: structure and classification;
- Prof Ivan Todorov (Queen's University Belfast): Schur multipliers.

The conference also featured 17 short participant talks covering many areas of Functional Analysis. There were a total of 24 participants from 10 institutions. The organisers are very grateful to the Irish Mathematical Society, the London Mathematical Society and several local companies for supporting the event. We would also like to express our thanks to the participants and invited speakers for their enthusiastic participation. Report by Andrew McKee and Linda Mawhinney, Queen's University, Belfast yfaw2016@gmail.com

GROUPS IN GALWAY 2016 20–21 May 2016, NUI Galway

Groups in Galway, an annual conference on group theory and related topics which has been running since 1978, was held at NUI Galway on 20–21 May. The conference had 41 participants and featured ten talks of speakers from Ireland, UK, continental Europe and Brazil. The following wide range of topics were covered: Lie groups, geometric group theory, fusion systems, semigroup theory, pro-p-groups, representation theory and other structural problems for infinite groups. The speakers and titles were:

- Collin Bleak (University of St Andrews): On detecting solubility for finitely generated subgroups of the group $PL_o(I)$
- John Burns (NUIG): Discrete Tori in Weyl groups and their applications
- Francesco de Giovanni (University of Naples):

The murdered cardinal: a countably recognizable crime

• Ellen Henke (University of Aberdeen):

Normal subsystems of fusion systems and partial normal subgroups of localities

- Mark Lawson (Heriot-Watt University): Boolean full groups
- Nadia Mazza (Lancaster University): On a pro-*p* group of upper triangular matrices
- Bob Oliver (Université Paris 13): Automorphisms and extensions of fusion systems
- Shane O'Rourke (Cork Institute of Technology): A combination theorem for affine tree-free groups
- Said Sidki (Universidade de Brasilia): From the Alternating Groups to Orthogonal Groups over Laurent Polynomial Rings
- Peter Symonds (University of Manchester): Endotrivial modules for infinite groups

Besides talks, there was also a poster competition for students and young researchers, and research expenses prizes were awarded according to conference participants's vote. Further details of the program, as well as some photographs from the event, can be found at

http://www.maths.nuigalway.ie/conferences/gig16/

The organizers, Ted Hurley and Sejong Park, are grateful to NUI Galway (Registrar's Office), SFI and the Irish Mathematical Society for financial support of the conference.

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