

## Preface

The workshop 'Singularities in Geometry and Applications III' was the third in a sequence of biennial workshops, the first being at Valencia, Spain in 2009<sup>1</sup> and the second at Będlewo, Poland, in 2011<sup>2</sup>. The whole sequence is a tribute to the inspirational work of Carmen Romero Fuster, and the fourth term of the sequence is scheduled to take place in Japan in 2015. The third workshop, held at the International Centre for Mathematical Sciences (ICMS) in Edinburgh, Scotland from 2 to 6 September 2013, attracted 76 participants from 19 countries. The workshop celebrated the 60<sup>th</sup> birthday of Stanisław Janeczko and included a lecture about his work by Wojciech Domitrz.

The plenary lectures were as follows:

Andrew du Plessis, 'Complete transversals revisited'  
Wolfgang Ebeling, 'Variance of the exponents of orbifold Landau-Ginzburg models'  
Goo Ishikawa, 'The  $D_4$ -triviality and singularities of tangent surfaces'  
Shyuichi Izumiya, 'Caustics of world sheets in anti-de Sitter space'  
Stanisław Janeczko, 'Cycles in combinatorial parametrization of tetrahedral chains'  
Oleg Karpenkov, 'Global relations for toric singularities'  
Wojciech Kucharz, 'Stratified-algebraic vector bundles'  
Anatoly Libgober, 'Abelian varieties associated with plane curve singularities'  
David Mond, 'Open problems in singularities of mappings from  $n$  space to  $n + 1$  space'  
András Némethi, 'Lattice cohomology for superisolated and Newton nondegenerate singularities'  
Juan José Nuño-Ballesteros, 'Contact properties of surfaces in 3-space with corank 1 singularities'  
Patrick Popescu-Pampu, 'The self-dual lattices of plane branches'  
Anna Pratussevitch, 'Higher spin bundles on Klein surfaces'  
Richard Rimanyi, 'Thom polynomials as structure constants'  
Viacheslav Sedykh, 'On the topology of stable Lagrange mappings with singularities of types  $A$  and  $D$ '  
Sergey Shadrin, 'A correspondence between Hurwitz numbers and moduli of curves'  
András Szenes, 'Thom polynomials and localization'  
Farid Tari, 'Curves and surfaces in the Minkowski space'

In addition, Donal O'Shea delivered a Public Lecture on the subject 'The Lure of Singularity Theory'.

Slides from some of the plenary and other lectures are available on the workshop's webpage <http://www.icms.org.uk/workshop.php?id=285>

Special thanks are due to the ICMS for their excellent organization. In particular we thank the Centre Manager Jane Walker and Helene Frössling who was the Conference Coordinator at that time. We also gratefully acknowledge financial support for the workshop, from the ICMS (via the Engineering and Physical Sciences Research Council), the London Mathematical

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<sup>1</sup>Proceedings of the First Workshop on Singularities in Generic Geometry and Applications, *Topology and its Applications* **159**, issue 2, 2012.

<sup>2</sup>Proceedings of the Second Workshop on Singularities in Geometry and Applications, *Journal of Singularities* Volume 6, 2012.

Society and, for three young researchers, from the UK-based Institute of Mathematics and its Applications.

Fifteen of the speakers have now presented their work in a written form, as research article, survey or exposition. We are grateful to the participants for their assistance in the refereeing process and to the editors of the Journal of Singularities for making possible this special issue containing some of the tangible outcomes of the workshop in Edinburgh.

Jean-Paul Brasselet

Peter Giblin

Victor Goryunov

January 2015

## List of Participants

Alharbi, Fawaz  
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Barbosa, Jose Camilo  
Batista, Erica  
Bin Turki, Nasser  
Borodzik, Maciej  
Brasselet, Jean-Paul  
Bruce, Bill  
Chen, Liang  
Chillingworth, David  
Christensen, Sabrina Tang  
Domitrz, Wojciech  
Donelan, Peter  
du Plessis, Andrew  
Ebeling, Wolfgang  
Ferreira Costa, João Carlos  
Giblin, Peter  
Goryunov, Victor  
Grandjean, Vincent  
Haddley, Joel  
Hernandes, Marcelo  
Ishikawa, Goo  
Izumiya, Shuichi  
Janeczko, Stanisław  
Karpenkov, Oleg  
Kong, Lingling  
Kucharz, Wojciech  
Kushner, Leon  
Libgober, Anatoly  
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Machida, Yoshinori  
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Nuño-Ballesteros, Juan José  
O'Shea, Donal  
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Oset Sinha, Raúl  
Pei, Donghe  
Peñafort, Guillermo  
Popescu-Pampu, Patrick  
Pratoussevitch, Anna  
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Rimanyi, Richard  
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Siersma, Dirk  
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Tari, Farid  
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Wall, Terry  
Wang, Zhigang  
Weber, Andrzej  
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Yukuno, Wataru