List of Invited Talks – Alan Matthew Thompson

Conferences and Workshops

- *Pseudolattices, degenerations, and fibrations of K3 surfaces*, short research talk given at the British Mathematical Colloquium 2023, University of Bath, April 2023.

- *Type II degenerations of K3 surfaces, pseudolattices, and mirror symmetry*, research talk given at the "Explicit Moduli Problems in Higher Dimensions" conference, Banff International Research Station, March 2023.

- *The mirror Clemens-Schmid sequence*, research talk given at the "3CinG Annual Congress" conference, University of Warwick, September 2021.

- *Mirror symmetry for fibrations and degenerations*, research talk given at the 2020 CMS Winter Meeting, online, December 2020.

- *K3-fibred threefolds and elliptic surfaces*, research talk given at the "Workshop on Elliptic Fibred CY 3-Folds and their Singularities", University of Warwick, February 2020.

- *Compactifications of the moduli space of K3 surfaces of degree 2*, research talk given at the summer school on "Moduli and Stability Conditions", Leibniz Universität Hannover, August 2019.

- *Pseudolattices and homological mirror symmetry*, research talk given to the "Recent Developments in Higgs theory" conference, Higher School of Economics, Moscow, October 2018.

- *Pseudolattices and mirror symmetry*, research talk given to the "Classification, Computation, and Construction: New Methods in Geometry" workshop, University of Warwick, October 2018.

- *ADE surfaces*, research talk given to the "Young Perspectives in Algebraic Geometry" conference, Universität Bayreuth, March 2018.

- *Mirror symmetry for lattice polarized del Pezzo surfaces*, research talk given to the "Mirror Symmetry and Applications" conference, Higher School of Economics, Moscow, December 2017.

- *Anticanonical pairs with involution*, poster presented at the 3rd British Algebraic Geometry meeting, University of Cambridge, September 2017.

- *Mirror symmetry for lattice polarized del Pezzo surfaces*, research talk given at the 3 C in G group meeting, University of Warwick, May 2017.

- *K3-fibred Calabi-Yau threefolds and mirror symmetry*, research talk given at the opening meeting of the "Classification, Computation, and Construction: New Methods in Geometry" program, University of Warwick, October 2016.

- *Calabi-Yau threefolds fibred by lattice polarized K3 surfaces*, research talk given to the retrospective workshop for the 2013 Fall Thematic Program on "Calabi-Yau Varieties: Arithmetic, Geometry and Physics", Herstmonceux Castle, United Kingdom, June 2016.

- *Mirror symmetry for fibrations and degenerations*, research talk given to the Winter 2016 Workshop on Algebraic Varieties, Fields Institute, Toronto, March 2016.

- *Elliptic surfaces and K3-fibred threefolds*, research talk given to the Weekend Workshop on Algebraic Varieties, Fields Institute, Toronto, November 2015.

- *Towards a compactification of the moduli space of K3 surfaces of degree two*, research talk given to the "Moduli Spaces and Enumerative Geometry" conference, IMPA, Rio de Janeiro, April 2015.

- *Towards a compactification of the moduli space of K3 surfaces of degree two*, research talk given to the Weekend Workshop on Algebraic Varieties, Fields Institute, Toronto, March 2015.

- *Degenerations of plane sextics*, short research talk given to the 2014 CMS Winter Meeting, Hamilton, Canada, December 2014.

- *Moduli of Calabi-Yau threefolds fibred by lattice polarized K3 surfaces*, research talk given to the Weekend Workshop on Algebraic Varieties, Fields Institute, Toronto, November 2014.

- *Calabi-Yau threefolds fibred by Kummer surfaces*, research talk given to the "Calabi-Yau Manifolds and their Moduli" conference, University of Alberta, June 2014.

- *The arithmetic/thin dichotomy for Calabi-Yau threefolds and families of K3 surfaces*, short research talk given to the 2014 AMS Southeastern Spring Sectional Meeting, University of Tennessee, Knoxville, March 2014.

- *Families of lattice polarized K3 surfaces with monodromy*, short research talk given to the 2013 CMS Winter Meeting, Ottawa, Canada, December 2013.

- *Variations of Hodge structure and the period map*, introductory talk for graduate students given at the concentrated graduate course preceding the workshop on "Hodge Theory in String Theory", Fields Institute, Toronto, November 2013.

- *Moduli of K3 surfaces*, introductory talk for graduate students given at the concentrated graduate course preceding the Workshop on "Modular Forms around String Theory", Fields Institute, Toronto, September 2013.

- *From K3 to CY3*, research talk given to the introductory summer school on "Calabi-Yau Varieties: Arithmetic, Geometry and Physics", Fields Institute, Toronto, August 2013.

- *The 14th case VHS and K3 fibrations: elliptic surfaces*, short research talk given to the 2012 CMS Winter Meeting, Montréal, Canada, December 2012.

- *Degenerations of K3 surfaces of degree two*, research talk given to the workshop on "Hodge Theory and String Duality", Banff International Research Station, December 2011.

- *Degenerations of K3 surfaces of degree two*, research talk given to the workshop on "Arithmetic and Geometry of K3 surfaces and Calabi-Yau threefolds", Fields Institute, Toronto, August 2011.

- *Models for threefolds fibred by K3 surfaces of degree two*, short research talk given to the Géométrie Algébrique en Liberté XIX conference, Freie Universität Berlin, July 2011.

- *Models for threefolds fibred by K3 surfaces of degree two*, short research talk given to the Young Researchers in Mathematics conference, University of Warwick, April 2011.

- *The construction of ample $\langle 2 \rangle$-polarised K3-fibrations*, short research talk given to the Young Researchers in Mathematics conference, University of Cambridge, April 2009.

Seminars
- *Pseudolattices, degenerations, and fibrations of K3 surfaces*, research talk given to the Sheffield algebraic geometry seminar, University of Sheffield, May 2023.

- *Pseudolattices, degenerations, and fibrations of K3 surfaces*, research talk given to the Washington University in St. Louis algebraic geometry seminar, Washington University in St. Louis, April 2023.

- *Pseudolattices, geometry, and mirror symmetry*, general interest talk given to the Bard College mathematics seminar, Bard College, April 2023.

- *The mirror Clemens-Schmid sequence*, research talk given to the K-theory, algebraic cycles and motivic homotopy theory seminar, Isaac Newton Institute, Cambridge, July 2022.

- *The mirror Clemens-Schmid sequence*, research talk given to the More Algebraic Geometry at Imperial College (MAGIC) seminar, Imperial College London, June 2022.

- *Mirror symmetry: the great mathematical story you've (probably) never heard...*, general interest talk given to the Loughborough mathematics student seminar, Loughborough University, December 2021.

- *The mirror Clemens-Schmid sequence*, research talk given to the Oxford algebraic and symplectic geometry seminar, University of Oxford, October 2021.

- *The mirror Clemens-Schmid sequence*, research talk given to the CMSA algebraic geometry in string theory seminar, Harvard University, September 2021.

- *The mirror Clemens-Schmid sequence*, research talk given to the Loughborough geometry and mathematical physics seminar, Loughborough University, May 2021.

- *The mirror Clemens-Schmid sequence*, research talk given to the Washington University in St. Louis online geometry seminar, Washington University in St. Louis, May 2021.

- *The many faces of mirror symmetry*, general interest talk given to the Loughborough mathematical reviews seminar, Loughborough University, February 2021.

- *Mirror symmetry for fibrations and degenerations*, research talk given to the Cardiff online geometry seminar, Cardiff University, December 2020.

- *Mirror symmetry for fibrations and degenerations*, research talk given to the Loughborough geometry and mathematical physics seminar, Loughborough University, October 2020.

- *Mirror symmetry for fibrations and degenerations*, research talk given to the "FanoSearch" online algebraic geometry seminar, October 2020.

- *Mirror symmetry for fibrations and degenerations*, research talk given to the "ZAG" Zoom Algebraic Geometry online seminar, September 2020.

- *Threefolds fibred by sextic double planes*, research talk given to the Nottingham online algebraic geometry seminar, University of Nottingham, May 2020.

- *Compactifications of the moduli space of K3 surfaces of degree 2*, research talk given at the Séminaire Méditerranéen de Géométrie Algébrique, Université Paul Sabatier, Toulouse, October 2019.

- *Pseudolattices, del Pezzo surfaces, and fibrations over discs*, research talk given to the Loughborough geometry and mathematical physics seminar, Loughborough University, February 2019.

- *ADE surfaces*, research talk given to the London geometry and topology seminar, Imperial College London, February 2019.

- *Pseudolattices, del Pezzo surfaces, and fibrations over discs*, research talk given to the Liverpool algebraic geometry seminar, University of Liverpool, January 2019.

- *Hilbert's 15th problem, curve counting, and mirror symmetry*, general interest talk given to the Loughborough mathematical reviews seminar, Loughborough University, November 2018.

- *ADE surfaces*, research talk given to the York algebra seminar, University of York, November 2018.

- *Pseudolattices, del Pezzo surfaces, and fibrations over discs*, research talk given to the Cambridge algebraic geometry seminar, University of Cambridge, May 2018.

- *Threefolds fibred by K3 surfaces and mirror symmetry*, research talk given to the Center of Mathematical Sciences and Applications mirror symmetry seminar, Harvard University, April 2018.

- *ADE surfaces*, research talk given to the Loughborough geometry and mathematical physics seminar, Loughborough University, March 2018.

- *ADE surfaces*, research talk given to the Warwick algebraic geometry seminar, University of Warwick, January 2018.
- *Mirror symmetry for lattice polarized del Pezzo surfaces*, research talk given to the COW national algebraic geometry seminar, University of Warwick, July 2017.
- *Mirror symmetry for lattice polarized del Pezzo surfaces*, research talk given to the Freie Universität Berlin arithmetic geometry seminar, Freie Universität Berlin, June 2017.
- *Towards a compactification of the moduli space of K3 surfaces of degree two*, research talk given to the Warwick algebraic geometry seminar, University of Warwick, January 2017.
- *Constructing threefolds via K3 fibrations*, research talk given at the East Midlands seminar in geometry, University of Loughborough, November 2016.
- *Towards a compactification of the moduli space of K3 surfaces of degree two*, research talk given to the Oxford algebraic and symplectic geometry seminar, University of Oxford, November 2016.
- *Calabi-Yau threefolds fibred by lattice polarized K3 surfaces*, research talk given to the UIC algebraic geometry seminar, University of Illinois at Chicago, September 2015.
- *Calabi-Yau threefolds fibred by lattice polarized K3 surfaces*, research talk given to the Waterloo geometry and topology seminar, University of Waterloo, October 2014.
- *Plane sextics and hyperbolic diagrams*, research talk given to the Calabi-Yau varieties postdoctoral seminar, Fields Institute, Toronto, November 2013.
- *Families of lattice polarised K3 surfaces with monodromy*, research talk given to the PIMS geometry and physics seminar, University of Alberta, November 2013.
- *Families of lattice polarised K3 surfaces with monodromy*, research talk given to the University of Georgia algebraic geometry seminar, University of Georgia, September 2013.
- *Families and moduli of K3 surfaces and Calabi-Yau threefolds*, research talk given to the Calabi-Yau varieties postdoctoral seminar, Fields Institute, Toronto, July 2013.
- *Degenerations of K3 surfaces of degree two*, research talk given to the University of Georgia algebraic geometry seminar, University of Georgia, February 2012.
- *Models for threefolds fibred by K3 surfaces of degree two*, research talk given to the COW national algebraic geometry seminar, University of Warwick, May 2011.
- *Models for threefolds fibred by K3 surfaces of degree two*, research talk given to the Liverpool algebraic and arithmetic geometry seminar, University of Liverpool, April 2011.
- *Models for threefolds fibred by K3 surfaces of degree two*, research talk given to the CALF national junior algebraic geometry seminar, Imperial College, London, April 2011.
- *Models for threefolds fibred by K3 surfaces of degree two*, research talk given to the Oxford junior geometry and topology seminar, University of Oxford, October 2010.
- *Hodge theory, period mappings and the moduli of K3's*, short general interest talk given to the CALF national junior algebraic geometry seminar, Imperial College, London, April 2009.
- *Degenerations of surfaces with Kodaira number zero*, general interest talk given to the CALF national junior algebraic geometry seminar, University of Oxford, March 2009.
- *The construction of ample $\langle 2 \rangle$-polarised K3-fibrations*, research talk given to the Oxford junior geometry and topology seminar, University of Oxford, November 2008.
- *An introduction to the birational classification of surfaces*, general interest talk given to the Oxford junior geometry and topology seminar, University of Oxford, June 2008.
- *Tjurina and Milnor numbers of matrix singularities*, research talk given to the CALF national junior algebraic geometry seminar, University of Warwick, November 2007.

Colloquia
- *Threefolds fibred by K3 surfaces*, colloquium talk given at the University of Saskatchewan, March 2016.
- *A lay person's guide to birational geometry*, "open access" talk given to the New College graduate colloquium, University of Oxford, January 2009.

Public Lectures
- *To infinity... and beyond?*, public lecture at the LogiCON science convention, MacEwan University, May 2014.
- *The mathematics of knots (or: what do pure mathematicians do all day?)*, public lecture at the LogiCON science convention, University of Alberta, May 2013.
- *Non-Euclidean geometry*, public lecture at the LogiCON science convention, TELUS World of Science, Edmonton, April 2012.