

- Education**
- **Australian National University**, Ph.D. in Mathematics, July 2008.
 - **University of Queensland**, B. Sc. (Honours) in Mathematics, 2003.
- Employment**
- **University of Melbourne**: Lecturer, from 2015 onwards.
 - **University of Southern California, Los Angeles**: Assistant Professor, 2013-2016.
 - **MSRI, Berkeley**: Postdoctoral Fellow, January-May 2013.
 - **University of California, Los Angeles**: E.R. Hedrick Assistant Professor, 2010-2013.
 - **Hausdorff Center for Mathematics, Bonn**: Postdoc, 2008-2010.
- Interests** Algebraic geometry, commutative algebra, category theory, mathematical logic.
- Publications**
1. D. Murfet, *Logic and linear algebra: an introduction*, arXiv: 1407.2650.
 2. D. Murfet, *On Sweedler's cofree cocommutative coalgebra*, J. Pure and Applied Algebra. 219 (2015) 5289-5304.
 3. D. Murfet, *Cut systems and matrix factorisations I*, arXiv:1402.4541.
 4. D. Murfet, *Matrix Factorizations*, a survey article in the Spring 2013 Emissary, newsletter of the MSRI.
 5. N. Carqueville and D. Murfet, *A toolkit for defect computations in Landau-Ginzburg models*, arXiv: 1303.1389, contribution to the String-Math 2012 proceedings.
 6. N. Carqueville and D. Murfet, *Adjunctions and defects in Landau-Ginzburg models*, Adv. Math. 289 (2016), 480-566.
 7. N. Carqueville and D. Murfet, *Computing Khovanov-Rozansky link homology and defect fusion*, Algebraic & Geometric Topology 14 (2014), 489-537.
 8. T. Dyckerhoff and D. Murfet, *Pushing forward matrix factorisations*, Duke Math. J. Volume 162, Number 7 (2013), 1249-1311.
 9. T. Dyckerhoff and D. Murfet, *The Kapustin-Li formula revisited*, Adv. Math. 231 (2012), 1858-1885.
 10. D. Murfet, *Residues and duality for singularity categories of isolated Gorenstein singularities*, Compositio Mathematica, 149 (2013) 2071-2100.
 11. D. Murfet and S. Salarian: *Total acyclicity for complexes over a Noetherian scheme*, Adv. Math. 226 (2011), 1096-1133.
 12. D. Murfet, *Rouquier's cocovering theorem and well-generated triangulated categories*, Journal of K-Theory 01 (2011) 31-57.
 13. B. Keller, D. Murfet and M. Van den Bergh, *On two examples by Iyama and Yoshino*, Compositio Mathematica, 147 (2010) 591-612.

- Awards**
- **2003** - Ethel Raybould prize in Mathematics, University medal (University of Queensland).
 - **2001** - Michael P O'Donnell Memorial prize, Maude Walker prize (University of Queensland).

- Teaching experience**
- Classes taught*
- Linear algebra
 - Calculus
 - Differential equations
 - Nonlinear systems of differential equations
 - Singularity theory and deformations

- Seminars and conference talks**
- Seminar talks in the last five years:*
- **October 2015**, Melbourne algebra seminar.
 - **February 2015**, Stanford algebraic geometry seminar.
 - **November 2014**, San Diego, Southern California Algebraic Geometry Seminar.
 - **September 2013**, USC topology seminar.
 - **March 2013**, MSRI algebra seminar.
 - **November 2012**, University of Washington geometry seminar.
 - **August 2012**, Purdue algebraic geometry seminar.
 - **May 2012**, UC Riverside topology seminar.
 - **October 2011**, UCLA algebra seminar.
 - **September 2011**, MIT topology seminar.
 - **September 2011**, University of Nebraska-Lincoln algebra seminar.
 - **April 2011**, University of Southern California algebra seminar.
 - **August 2010**, University of Melbourne algebra seminar.
 - **May 2010**, Imperial College London algebra seminar.
 - **May 2010**, Augsburg mathematical physics seminar.
 - **January 2010**, Copenhagen topology seminar.
 - **January 2010**, Bonn algebraic geometry seminar.

Conference and workshop talks:

- **December 2015**, Melbourne logic workshop.
- **September 2014**, San Francisco, speaker in the AMS special session "Categorical Methods in Representation Theory".
- **September 2013**, Oberwolfach, speaker in the workshop "Matrix Factorizations in Algebra, Geometry, and Physics".
- **April 2013**, MSRI, "Interactions between Noncommutative Algebra, Representation Theory, and Algebraic Geometry".
- **February 2013**, MSRI, "Representation theory, homological algebra, and free resolutions".

- **April 2012**, Los Angeles, “Southern California Algebra Conference”.
- **February 2012**, Munich, speaker in the workshop “New perspectives on supersymmetric gauge theories”.
- **June 2011**, Banff, speaker in the workshop “Triangulated categories and applications”.
- **May 2011**, Bielefeld, “Workshop on matrix factorizations”.
- **December 2010**, Columbia University, speaker in the workshop “Categorification on Broadway”.
- **October 2010**, UCLA, speaker in the AMS special session “Homotopy Theory and K-Theory”.
- **August 2010**, Canberra, “Mathematics and physics on the borderline between algebraic and differential geometry”.
- **May 2009**, Paderborn “Triangulated categories and Singularities”.
- **September 2008**, Banff, speaker in the workshop “Representation Theory of Algebras and Applications to the Study of Rings of Singularities”.
- **June 2008**, Tehran, Speaker in the CIMPA-UNESCO-IPM school on Representation Theory of Algebras.
- **November 2007**, Barcelona, speaker in the workshop “Derived Categories” at the Centre de Recerca Matemàtica.

Colloquia

- **October 2015**, Vienna, “Two odd things about computation”.
- **August 2012**, Purdue, “Hypersurface singularities in mathematics and physics”.
- **October 2009**, University of Lincoln-Nebraska, “Duality in singularity categories and string theory”.

Events organised

- Together with Nils Carqueville and Ingo Runkel I am organising a workshop on “Higher Topological Quantum Field Theory and Categorical quantum mechanics” which will take place in October 2015 at the Erwin-Schrödinger Institute in Vienna.
- Together with Srikanth Iyengar and Ragnar Buchweitz I organised a month long focus period on matrix factorizations at the MSRI, as part of the MSRI program on Commutative Algebra from August 2012 - May 2013.

Lecture series

At the Pan-American Advanced Studies Institute (PASI), I presented a lecture series on “Bicategories and matrix factorisations” in the workshop on “Commutative Algebra and Its Interactions with Algebraic Geometry, Representation Theory, and Physics” in Guanajuato, Mexico May 14-25 2012 (<http://www.commalg.org/pasi-2012/>)

Journals refereed Advances in Mathematics, Journal of Algebra, Journal of Pure and Applied Algebra, Documenta Mathematica, Communications in Algebra, Duke Mathematical Journal, Algebra & Number Theory.

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Citizenship: Australia