

Curriculum Vitae

Frank Sottile

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Citizenship: U.S.A.

Professional Preparation:

Michigan State University, Honors B.S. in Physics, 1985.
University of Cambridge, M.S., Maths Tripos Part III, with distinction, 1986.
University of Chicago, S.M. Mathematics, 1989.
University of Chicago, Ph.D. in Mathematics, 1994.

Thesis Advisor: William Fulton

Research Interests: Real, computational, and combinatorial algebraic geometry, applications of algebraic geometry, tropical geometry, toric varieties, algebraic combinatorics, combinatorial Hopf algebras, discrete and computational geometry, mathematical physics.

Professional Experience

Professor, Texas A&M University, Since September 2006.
Visiting Professor: Freie Universität Berlin, University of Waterloo, Technische Universität München, Université Paris 6, Université de Rennes II, Université de Strasbourg.
Associate Professor, Texas A&M University, August 2004–August 2006.
Clay Mathematical Institute Senior Researcher, January–June 2004.
Assistant Professor, University of Massachusetts at Amherst, 2000–2004.
Van Vleck Assistant Professor, University of Wisconsin at Madison, 1999–2000.
MSRI Postdoctoral Fellow, 1996–1997 and Autumn 1998.
Term-Limited Assistant Professor, University of Toronto, 1994–1998.

Ph.D. Advisees: Year of Ph.D. and current position.

Jim Ruffo (2007), Associate Professor of Mathematics, SUNY Oneonta.
Weronika Buczyńska (2010), Adjunct Professor of Mathematics, University of Warsaw.
Corey Irving (2012), Lecturer, Dept. Math., University of Santa Clara.
Abraham Martin Del Campo-Sanchez (2012), Research Fellow, CIMAT, Guanajuato, Mx.
Nickolas Hein (2013), Associate Professor and Chair, Dept. Math., Benedictine College.
Robert Williams (2017), National Security Agency.
Ata Pir (2018), Software Engineer at F5, San Jose, CA.
Li Ying (2019), Senior Lecturer, Dept. Math., Vanderbilt University.
Taylor Brysiewicz (2020), Assistant Professor of Mathematics, Western University, Ontario.
Elise Walker (2022), Postdoctoral Researcher, Sandia National Laboratory.
Thomas Yahl (2023 expected), Van Vleck Visiting Assistant Professor of Mathematics, University of Wisconsin, Madison (Fall 2023).
CURRENT STUDENTS: Matthew Faust, Christopher Bott, Jordy Lopez-García.

Master's Advisees: Four current, six completed.

Postdoctoral Advisees:

Greg Warrington (2000-3), Professor of Mathematics, University of Vermont.
 Evgenia Soprunova (2002-2004), Associate Professor of Mathematics, Kent State University.
 Frédéric Bihan (2004), Maître de Conference, Université Savoie Mont Blanc.
 Luis Garcia (2005–2007), Professor of Mathematics, Colorado College. Fellow of the AMS.
 Christopher Hillar (2005–2008), Mathematician Entrepreneur, Awecom, Inc.
 Zach Teitler (2007–2010), Professor of Mathematics, Boise State University.
 Aaron Lauve (2007–2010), Associate Professor of Mathematics, Loyola University Chicago.
 Jon Hauenstein (2010–2012), Professor and Chair, Department of Applied and Computational Mathematics and Statistics, Notre Dame. Fellow of the AMS.
 Mounir Nisse (2010–2013), Associate Professor, Xiamen University Malaysia.
 Jacob White (2012–2015), Assistant Professor University of Texas Rio Grande Valley.
 Timo de Wolff (2014–2017), Professor of Mathematics, Technische Universität Braunschweig. Chair, German National Young Academy.
 Emanuele Ventura (2017–2019), Assistant Professor of Mathematics, Politecnico di Torino.

Major Awards:

Fellow of the American Mathematical Society, Inaugural Class of Fellows, 2012.
 Texas A&M Department of Mathematics award for service, December 2009.
 Kavli Fellow, National Academy of Sciences' Japanese-American Frontiers of Science Symposium, 1–3 December 2007, Kanagawa, Japan.
 Clay Mathematical Institute Research Scholar January–June, 2004.
 NSF CAREER Award, 2002–2007.
 Invited talk, AMS Eastern Section Meeting, Fall 2001.
 National Science Foundation Graduate Fellow. 1986–1989.
 Winston Churchill Foundation Graduate Fellow, Churchill College, Cambridge University, 1985–1986.

Major Research Grants

NSF Individual Research Grant, August 2022–July 2025. DMS-2201005, \$303,805.
 Simons Foundation Grant, Number 636314. Sept 2019–August 2022 \$25,200.
 NSF Individual Research Grant, 2015–2019. DMS-1501370. \$347,360.
 NSF Individual Research Grant, 2010–2014. DMS-1001615. \$235,395.
 NSF equipment SCREMS grant, 2009–2010, DMS-0922866. \$59,480.
 NSF Individual Research Grant, 2009–2013. DMS-0915211. \$435,757.
 Texas ARP grant 2008-2010. \$144,000.
 NSF Individual Research Grant. 2007–2010. DMS-0701050, \$202,895.
 NSF CAREER grant, 2002–2007. DMS-0134860. \$344,577.
 Co-Principal Investigator, Scientific Computing Research Initiative in the Mathematical Sciences grant, 2000–2003. DMS-0079536. \$120,802.
 NSF Individual Research Grant, 2000–2002. DMS-0070494. \$101,800.
 NSERC Research Grant. 1995–1998. OGP0170279. C\$22,500.

Conference Grants

Co-PI, NSF conference grant “Texas Algebraic Geometry Seminar (TAGS) 2018–2020”, DMS-1758574. \$45,000.
 Co-PI, NSF conference grant “TAGS 2015”, DMS-1450510. \$14,960.

CIMPA grant for Research School at University of Ibadan, Nigeria. June 2017. €12000.
 Co-PI, NSF Conference grant “TAGS 2009”, DMS-0915235. \$8690.
 Co-PI, NSA conference grant, for March 2009 workshop at MSRI. \$15,000.
 NSF conference grant, 2008, Bernoulli ctr., EPFL, Switzerland. DMS-0800253. \$12,000.
 Co-PI Semester: “Real Algebraic Geometry and Tropical Geometry” at Bernoulli Centre, EPFL Lausanne, Switzerland. 180,000 Swiss Francs.
 NSF conference grant for summer school in 2007. DMS-0704355. \$25,000.
 Co-PI, NSA conference grant to fund US participation at the Coloquio Latinamericano di Álgebra in Colonia, Uruguay, August 2005. \$15,000.
 NSA conference grant for March 2004 workshop at MSRI. \$15,000.
 NSF conference grant for April 2004 workshop at MSRI. \$15,000.
 NSA conference grant for Discrete Mathematics in New England, 2002–2004. \$16,420.
 Five Colleges Lecture Fund for Valley Discrete Math Day, October 2001. \$1,000.
 University of Toronto Grant (for FPSAC 1998). C\$5,000.

Publications:

135 publications and one book:

www.math.tamu.edu/~sottile/research/publications.html.

Talks:

Over 530 research and colloquium talks: www.math.tamu.edu/~sottile/talks/talks.html.

Over 180 outreach presentations: www.math.tamu.edu/~sottile/talks/outreach.html.

Professional Service:

Editing and Refereeing

Corresponding Editor, SIAM Journal on Applications of Algebra and Geometry, 2016–.
 Editorial Board, American Mathematical Monthly, 2014–.
 Editorial Board, Canadian Mathematical Bulletin, 2011–2016.
 Editorial Board, Canadian Journal of Mathematics, 2011–2016.
 Editorial Board, American Institute of Mathematics Open Textbook Initiative, 2010–2015.
 Editorial Board, SIAM Journal on Discrete Mathematics, 2004–2016.
 Editorial Board of the Young Mathematicians Network, 1994–1999.
 Refereed over 450 papers for over 130 Journals.
 Grant review for NSF, NSA, NSERC (Canada), ISF (Israel), FWF (Austria), FONDECYT (Chile), ANR & INRIA (France), NWO (Netherlands), DMV (Germany), SNSF (Switzerland), DFF (Denmark), ERC (EU).
 Selection Committee for Winston Churchill Foundation Scholarships, 2014 and 2020.
 Member, Panel to evaluate Simons Foundation Collaboration Grants for Mathematicians, 2020 and 2021.
 AMS Algebra panel to evaluate MSP grants for the NSA, 2012–2013.

Service to Professional Societies

BIRS Scientific Advisory Board, 2017–2021.
 Led proposal for the SIAM Journal on Applications of Algebra and Geometry (2013–2015).
 Founder and Inaugural Chair of SIAM Activity Group on Algebraic Geometry 2009–2011.
 Mathematics Research Communities Advisory Panel, 2009–2010.

Major Conference Organization

Chair, Organizing committee, MEGA 2024 (Leipzig, Germany).

Program Committee and Lecturer, CIMPA Research School in Bobo-Dioulasso Burkina Faso, October 2021.

Program Committee, SIAM meeting on Applied Algebraic Geometry, 2021.

Organizing committee, “Nonlinear Algebra”, ICERM thematic program, Fall 2018.

Program committee, SIAM meeting on Applied Algebraic Geometry, 2017.

Co-organizer, CIMPA research school, University of Ibadan, Nigeria, June 2017.

Program committee, SIAM annual meeting, Minneapolis, Minnesota. 2012.

Program committee, SIAM meeting on Applied Algebraic Geometry, 2011.

Program committee, SIAM meeting on Discrete Mathematics, 2010.

Organizing committee, “Real Algebraic Geometry and Tropical Geometry”, thematic program at the Bernoulli Centre, EPFL Lausanne, Switzerland, Winter 2008.

Lead organizer and lecturer, IMA PI Summer Graduate School on Applicable Algebraic Geometry, July 23–10 August 2007.

Organizing committee TAGS 2006, 2009, 2012, 2015, 2018, 2022.

Program committee, SIAM Conference on Discrete Mathematics, 2006.

Chair of the organizing committee, MSRI semester, January-May 2004.

Program/Steering Committee MEGA conferences, since 2003.

Program committee FPSAC conferences, 1998, 2002, 2004, 2014, 2015.

Professional Societies

Member of the American Mathematical Society since 1988.

Member of the Society for Industrial and Applied Mathematics since 1998.

Member of the Mathematical Association of America, since 2011.

Member of the Canadian Mathematical Society, since 2011.

Departmental Service

Honors advisor, 2019—.

Undergraduate Studies Committee, 2019–2021.

Co-organizer, TAMU Math Circle, 2011–2018.

Organizer, TAMU Pi Day of the Century March 14, 2015.

Executive Committee, Texas A&M University, 2006–2008, 2012–2014, and 2017–2019.

Honors Committee, 2009–2015.

Outreach Committee, 2008–2009 and 2012–2019.

Graduate Affairs Committee, 2004–2005 and 2014–2017.

Co-organizer, Geometry Seminar, Texas A&M University, Since Autumn 2004.

Chair, Colloquium Committee, Department of Mathematics, U. Mass., 2002–2003.

Co-organizer of the Valley Geometry Seminar 2001–2003.

1997–1998 Mathematics Colloquium Committee at the University of Toronto.

1995–1996 Organized the Algebraic Geometry Seminar at the University of Toronto.

Faculty advisor for the University of Toronto Math Club (for Toronto area secondary students), Autumn 1995–Summer 1996.