

CURRICULUM VITAE

Sofia Tirabassi

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PROFESSIONAL EXPERIENCE:

01/2019- Associate Professor (*universitetslektor*-Docent) at the Stockholm University, Stockholm, Sweden.

08/2015-12/2020 Associate Professor (*førsteamanuensis*) at the University of Bergen, Bergen, Norway. I was in LOA 80% in 2019 and LOA 90% in 2020.

01/2013-07/2015 Postdoctoral Research Assistant Professor at the University of Utah, Salt Lake City (UT), USA.

03/2012-12/2012 Marie Curie Fellow at PLERCIM, Warsaw, Poland.

RESEARCH INTERESTS:

Algebraic and arithmetic geometry: derived categories, Fourier–Mukai transforms, moduli space of sheaves, abelian varieties, quasi-abelian varieties, generic vanishing theorems, irregular varieties.

PROJECTS, MERITS & AWARDS

2024 Co-applicant in the project *Recognizing the correct variety* funded by the *Alice and Knut Wallenberg Foundation* under the scheme *Program for Mathematics - Guest Professor*. The project's budget is SEK 350K.

2024-2027 Principal Investigator of the project *Generic vanishing and characterization of semiabelian varieties* funded by the *Vetenskap Rådet* under the scheme *Projektbidrag inom naturvetenskap och teknikvetenskap*. The project's budget is SEK 3632K.

2023-2034 Italian National Abilitation as Full Professor

2022-2033 Italian National Abilitation as Associate Professor

2021-2023 Principal Investigator of the project *Unknown properties of abstract geometric objects* funded by the *Knut och Alice Wallenberg Foundation* under the scheme *Program for Mathematics - Internatioinal Postdoctoral Scholar*. The project's budget is of SEK 1800K.

2018	Obtained EUR 5000 in funding to organize a workshop at the CIRM in Trento. I was the main applicant. My co-applicants were the other organizers of the event: L. Halle (University of Copenhagen) and K. Honigs (University of Utah).
2017-2021	Manager of the project <i>The arithmetic of derived categories</i> funded by the Research Council of Norway under the scheme FRINATEK. The project's budget is of NOK 7390K.
2017	Research Grant of NOK 130K awarded by the University of Bergen.
2015	AWM-NSF Travel Grant.
2014	Outstanding Postdoc Award of the Department of Mathematics of the University of Utah.
2013	AMS - Simons Travel Grant.
2013	AWM-NSF Mentoring Travel Grant, and Travel Grant.

EDUCATION:

09/2008-02/2012	Ph.D. in Mathematics at Università degli Studi Roma TRE, Rome, Italy.
10/2006-07/2008	<i>Laurea Specialistica</i> (M.Sc.) in Mathematics at the University of Bologna, Bologna, Italy.
10/2002-07/2006	<i>Laurea</i> (B.Sc.) in Mathematics at the University of Bologna, Bologna, Italy.

CAREER INTERRUPTIONS:

11/2019-06/2020	Maternity Leave.
08/2020-12/2020	Maternity Leave.

PUBLICATIONS:

- [16] M. Mendes Lopes, R. Pardini, and S. Tirabassi *A footnote to a theorem of Kawamata*, 2022. To appear on Math. Nach. Available at ArXiv:2210.11776
- [15] M. Mendes Lopes, R. Pardini, and S. Tirabassi *Effective characterizations of quasi-abelian surfaces*, 2022. To appear on Forum Math. Sigma. Available at ArXiv:2206.05464
- [14] T. Srivastava, S. Tirabassi *Counting Twisted Tame Fourier-Mukai Partners of an Ordinary K3 Surface*, 2021. To appear on MRL. Available at ArXiv:2109.03545
- [13] E. Ferrari, S. Tirabassi, and M. Vodrup, *On the Brauer group of bielliptic surfaces*, 2019. Preprint. Available at ArXiv:1910.12537. Appendix by J. Bergström and S. Tirabassi. To appear in Documenta Mathematica.
- [12] R. Laface, and S. Tirabassi, *On ordinary Enriques surfaces in positive characteristic*, Nagoya Math. J. 2020. DOI: 10.1017/nmj.2020.36. Preprint available at ArXiv:1908.09700.
- [11] M. Øygarden and S. Tirabassi, *Theta-regularity and log-canonical threshold*, MATHEMATICA SCANDINAVICA, 126(1), 73-81. <https://doi.org/10.7146/math.scand.a-115971>. Preprint available at ArXiv:1806.00326v2.
- [10] K. Honigs, M. Lieblich, and S. Tirabassi, *Fourier-Mukai partners of Enriques and bielliptic surfaces in positive characteristic*, 2017. Preprint. Available at ArXiv:1708.03409. To appear on Mathematical Research Letters.
- [9] K. Honigs, L. Lombardi, and S. Tirabassi, *Derived Equivalences of canonical covers of hyperelliptic and Enriques surfaces in positive characteristic*, Math. Z. 2019. DOI: 10.1007/s00209-019-02362-1
- [8] S. Tirabassi, *A note on the derived category of Enriques surfaces in characteristic 2*, *Bollettino dell'Unione Matematica Italiana*, 2016. DOI:10.1007/s40574-016-0100-2.
- [7] L. Lombardi, and S. Tirabassi, *Deformations of minimal cohomology classes*, 2014. Published on line on *Communications in Contemporary Mathematics*. DOI:10.1142/S0219199715500662.
- [6] L. Lombardi, and S. Tirabassi, *GV-subschemas and their embeddings in principally polarized abelian varieties*, 2014. Published on line on *Mathematische Nachrichten*. DOI:10.1002/mana.201400238.
- [5] Z. Jiang, M. Lahoz, and S. Tirabassi, *Characterization of products of theta divisors*, *Compositio Mathematica*, 2014. DOI:10.1112/S0010437X13007884.

- [4] S. Tirabassi, *Szygies and equations of Kummer Varieties*, *Bulletin of the London Mathematical Society*, 2013. DOI:10.1112/blms/bds117.
- [3] Z. Jiang, M. Lahoz, and S. Tirabassi, *On the litaka fibration of varieties of maximal Albanese dimension*, *International Mathematics Research Notices*, 2985–3005, 2013. DOI:10.1093/imrn/rns131.
- [2] S. Tirabassi, *On the tetracanonical map of varieties of general type and maximal Albanese dimension*, *Collectanea Mathematica* (63), 345–349, 2012. DOI: 10.1007/s13348-011-0059-3.
- [1] A. Bernardi, and S. Tirabassi, *Derived Categories of Fano Toric 3-folds via Frobenius Morphism*, *Le Matematiche*, LXIV, no. II, 117–154, 2010.

CONFERENCES & COLLOQUIA PRESENTATIONS:

- 06/2024 Minicourse at GAEL - *Geometrie Algebrique en Liberté*. Univerità degli studi di Torino, Turin, Italy.
- 12/2023 *Workshop on Enriques surfaces*. Univerità degli studi di Torino, Turin, Italy.
- 09/2023 Minicourse at the school *K3 surfaces, hyperkähler manifolds, and cubic fourfolds*. Hausdorff Research Institute for Mathematics, Bonn, Germany.
- 09/2023 *Ricercatori in Algebra e Geometria 2023*. Rome, Italy.
- 08/2023 *Workshop in algebraic geometry*. Stavanger, Norway.
- 06/2023 *Moduli of algebraic cycles*. Institute Mittag Leffler, Djursholm, Sweden.
- 07/2022 *The fourth Killing–Weierstrass Colloquim*. Gdansk, Poland.
- 06/2022 *Birational Geometry conference*. EPFL Lausanne, Switzerland.
- 06/2022 *Classical Elegance: the geometry of algebraic varieties*. Cortona (AR), Italy.
- 09/2020 2019 BIRS workshop -*Derived Categories and Birational Geometry*. BIRS, Banff, Canada.
- 06/2019 2019 MRC -*Explicit Methods in Arithmetic Geometry in Characteristic p* (external advisor), Whispering Pines Conference Center, Greenwich, Rhode Island, USA.
- 09/2018 National Mathematicians Meeting, Bergen, Norway (invited speaker in the parallel sessions).
- 04/2018 Colloquium at the Université libre de Bruxelles, Bruxelles, Belgium.
- 04/2018 *Crystals and Geometry in Characteristic p* , Technical University of Munich, Munich, Germany.
- 12/2017 *FRG Workshop*, Pennsylvania State University, State College (PA), USA.
- 11/2017 *Algebraic Geometry with “Fancy” coefficients*, Université de Caen - Normandie, Caen, France.
- 11/2017 National Algebra meeting, University of Oslo, Oslo, Norway.
- 09/2017 *Vector Bundles on Algebraic Curves 2017*, University of Duisburg-Essen, Essen, Germany.
- 09/2016 Workshop: *Higher Dimensional Birational Geometry and Characteristic p* , CIRM, Luminy, France.
- 06/2016 Nordic Number Theory Network Days IV, University of Copenhagen, Copenhagen, Denmark.
- 03/2016 27th Nordic Congress of Mathematicians, Mittag-Leffler Institute, Stockholm, Sweden.
- 11/2015 National Algebra meeting, University of Oslo, Oslo, Norway.
- 07/2015 AMS Summer Research Institute on Algebraic Geometry, University of Utah, Salt Lake City (UT), USA.
- 03/2015 AMS Central Spring Sectional Meeting, Michigan State University, East Lansing (MI), USA.
- 12/2014 Colloquium at the University of Arkansas, Fayetteville (AK), USA.
- 11/2014 Colloquium at the University of Bergen, Bergen, Norway.
- 10/2014 AMS Western Sectional Meeting, San Francisco University, San Francisco (CA), USA.
- 06/2014 Colloquium at the University of Stavanger, Stavanger, Norway.
- 10/2013 Western Algebraic Geometry Symposium, University of Idaho, Moscow (ID), USA.
- 12/2012 IMPANGA, IMPAN, Warsaw, Poland.
- 11/2012 Forum des jeunes mathématicien-ne-s 2012, Institute Henri Poincaré, Paris, France.
- 05/2012 Giornate di Geometria Algebrica ed Argomenti Correlati (Days in Algebraic Geometry and Related Subjects), Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy.
- 09/2011 XIX Conference of the Italian Mathematical Union, University of Bologna, Bologna, Italy.
- 12/2010 *Workshop of Algebraic Geometry*, Università degli Studi di Milano, Milan, Italy.

SELECTED SEMINAR TALKS:

06/2023	Università di Bologna, Bologna, Italy.
12/2022	Instituto Superior Técnico , Lisboa, Portugal.
10/2022	Università degli studi di Torino, Torino, Italy.
09/2022	University of Georgia, Atlanta (GA), USA.
11/2021	Institute Mittag Leffler, Djursholm, Sweden.
10/2020	Tata Institute Bombay, India.
09/2019	Uppsala University, Uppsala, Sweden.
05/2019	IST Austria, Wien, Austria.
03/2019	Uppsala University, Uppsala, Sweden.
02/2019	Stockholm Mathematics Center, Stockholm, Sweden.
11/2018	Artic University of Norway, Tromsø, Norway.
04/2018	Chalmers University of Technology, Gothenburg, Sweden.
03/2018	University of Amsterdam, Amsterdam, Netherlands.
06/2017	Università degli Studi di Padova, Padova, Italy.
02/2017	ETH Lausanne, Lausanne, Switzerland.
07/2016	Università degli Studi di Pisa, Pisa, Italy.
06/2016	Università degli Studi Roma TRE, Rome, Italy.
05/2016	University of Regensburg, Regensburg, Germany.
05/2016	University of Leuven, Leuven, Belgium.
04/2016	University of Oslo, Oslo, Norway.
10/2015	KTH, Stockholm, Sweden.
06/2015	University of Washington, Seattle (WA), USA.
04/2015	Stonybrook University, New York (NY), USA.
09/2014	Colorado State University, Fort Collins (CO), USA.
09/2014	Rice University, Houston (TX), USA.
06/2014	University of Stavanger, Stavanger, Norway.
04/2012	University of Illinois at Urbana–Champaign, Urbana (IL), USA.
01/2014	University of California at San Diego, San Diego (CA), USA.
11/2013	Ohio State University, Columbus (OH), USA.
10/2013	CIMAT, Guanajuato, Mexico.
11/2012	Jagellonian University of Krakow, Krakow, Poland.
04/2012	University of Bologna, Bologna, Italy.
01/2012	CIMAT, Guanajuato, Mexico.
01/2012	Università degli Studi di Padova, Padua, Italy.
12/2011	Università degli Studi di Torino, Turin, Italy.
03/2010	Università di Roma "La Sapienza", Rome, Italy.

SUPERVISION:

Postdoc	<i>Tuomas Tajakka</i> , Stockholm University, July 2021-June 2023.
Postdoc	<i>Giorgio Scattareggia</i> , UiB, September 2017-August 2019.
Ph.D.	<i>Magnus Vodrup</i> , UiB, October 2017-August 2021.
Ph.D.	<i>Eugenia Ferrari</i> , UiB, August 2016-May 2021. Current position: Associate professor at Universitete i Vestlandet
<i>Laurea Magistrale</i>	<i>Flavio Blondeau</i> , University of Trento (Italy), graduated in July 2018. Has now completed a PhD at the University of Rome "Tor Vergata".
Master Degree	<i>Stefano Luneia</i> , Stockhom University/Università di Bologna, 2023.
Master Degree	<i>Morten Øygarden</i> , UiB, graduated in June 2018. Has now completed a PhD at the University of Bergen.

<i>Kandidat</i>	<i>Daniel Martin</i> , Stockholm University (Sweden), under supervision.
<i>Kandidat</i>	<i>Eshan Pananhandeh</i> , Stockholm University (Sweden), under supervision (teacher program).
<i>Kandidat</i>	<i>David Lindow</i> , Stockholm University (Sweden), under supervision (teacher program).
<i>Kandidat</i>	<i>Johannes Hederstöm</i> , Stockholm University (Sweden), graduated in January 2024.
<i>Kandidat</i>	<i>Tilde Runnqvist</i> , Stockholm University (Sweden), graduated in December 2023 (teacher program).
<i>Kandidat</i>	<i>Eric Bergström</i> , Stockholm University (Sweden), graduated in August 2022 (teacher program).
<i>Kandidat</i>	<i>Lukas Horosiewicz</i> , Stockholm University (Sweden), graduated in January 2022.
<i>Kandidat</i>	<i>Jelena Petkovich</i> , Stockholm University (Sweden), graduated in June 2019 (teacher program).
<i>Licence</i>	<i>Morgane Arnaud</i> , Toulouse University (France), graduated in July 2018.
<i>Bacheloroppgaver</i>	<i>Sindre Eik</i> , UiB, Spring 2015.
<i>REU</i>	<i>Curtis Huston</i> , University of Utah, Fall 2014.

ORGANIZATION OF CONFERENCES

2024	Masterclass <i>Hodge Theory and Cohomological Jump Loci</i> to be held during summer 2024 and financed by the Stockholm Mathematical Center. Co-organizer together with D. Petersen (SU) and D. Rydh (KTH).
2023	Special Session <i>Algebraic Geometry</i> at the 29th Nordic Congress of Mathematicians. Co-organizer together with J. Rennemo (UiO) and G. Bérczi (Aarhus).
2022-Present	<i>Algebra and Geometry Seminar</i> of the Stockholm Mathematical Center. This is a weekly lecture series joint between KTH and SU in which international experts are invited to give talks about their research. Co-organizer with T. Bauer (KTH), G. Oberdieck (KTH), D. Rydh (KTH), D. Petersen (SU).
2021	Conference <i>The arithmetic and geometry of varieties with trivial canonical bundle</i> , held at the Soria Moria Hotel in Oslo (Norway). Co-organizer together with A. Knutsen (UiB), J. C. Ottem, K. Ranestad and J. Rennemo (UiO).
2019	Conference <i>Derived Categories and Geometry in Positive Characteristic</i> at IMPAN, Warsaw (Poland). Co-organizer together with A. Bodzenta (Warsaw), A. Langer (IMPAN).
2018	Workshop <i>The Arithmetic of Derived Categories</i> at CIRM, Trento (Italy). Co-organizer together with L. Halle (Copenhagen) and K. Honigs (Utah).
2017	<i>Geometry of Moduli</i> - the 2017 Abelsymposium. Co-organizer together with J. Christophersen, J. C. Ottem, R. Piene, K. Ranestad (UiO).

POPULAR DISSEMINATION

2023	Lecture about the concept of knowledge in Mathematics for 72 high school students from The Stockholm International School (IB curriculum)
2021	Lecturer at the <i>Kleindagar</i> .
2018	Public Lecture within the series <i>Matematikk Fagutvalg</i> organized by the student council at UiB. It was aimed mainly for first year students in the bachelor in Mathematics or Physics.
2016	Participant to the Radio Show <i>Chi dice donna</i> (Who said woman) about women in STEM, broadcast by the Italian Channel Radio 3 Scienza on October 25th at 11:30am.
2016	Interview on my life as young female mathematician organized by the communication office of UiB. Then, my interview was published in the website of the Department of Mathematics and in the news section of the University's website.
2016	Member of the organizing committee of the <i>Open Day</i> of the Department of Mathematics at UiB. Among the other activities, we organized a lecture for high school students on the geometry of infinity and fractals.

- 2014 Speaker at *Science Day*, an initiative of the College of Science of the University of Utah to attract high-school students to STEM. I gave a lecture on the use of Mathematics in cryptography.

TEACHING EXPERIENCE IN THE THIRD CYCLE

- 2023 *Introduction to abelian varieties* at the Stockholm University. Together with R. Skjelnes (KTH).
- 2018 *Deformation of Schemes* at the University of Bergen.
- 2017,2018 *Fourier-Mukai Transforms in Algebraic Geometry* at the University of Bergen.
- 2017,2018 Lecturer at *PhD Day* an initiative of the Department of Mathematics in Bergen to teach soft-skills to PhD students. I gave a 1-hour lecture both in 2017 and 2018.
- 2014 *PhD students - Teaching Assistants training* at the University of Utah, Salt Lake City (UT), USA. Role: instructor and group facilitator. I gave a 1-hour lecture and I facilitated group discussions for three days (24 hours).

APPOINTMENTS/BOARD PARTICIPATION:

- 2024 Member of the *Vetenskaprådet* review panel NT-S (Mathematics).
Member of the *Nationalkommitté för Matematik*.
- 2023 EWM country coordinator.
Committee member of the SMC Excellent Doctoral Thesis Award.
Evaluator for the foundation *Becas de la Caixa*.
Member Committee of Jeroen Hekking PhD dissertation (KTH)
Member Committee of Sammy Souleimani PhD dissertation (University of Stavanger)
EWM country coordinator.
- 2022 Chair of the committee of the SMC Excellent Doctoral Thesis Award.
Member Committee of Elin Westin Persson PhD dissertation (University of Uppsala)
EWM country coordinator.
- 2021 Member of the committee of Luigi Pagano PhD dissertation. (University of Copenhagen)
Chair of the expert panel in the hiring committee of an associate professor at the University of Stavanger
Member of the committee of the SMC Excellent Doctoral Thesis Award.
Evaluator for the foundation *Becas de la Caixa*.
EWM country coordinator.
- 2020 Member of the committee of the SMC Excellent Doctoral Thesis Award.
EWM country coordinator.
Evaluator for the foundation *Becas de la Caixa*.
- 2019 External member of the committee for the hiring of one temporary associate professor (*førsteamanuensis vikar*) at the University of Stavanger.
Member of the committee of the SMC Excellent Doctoral Thesis Award.
- 2018 Member of the hiring for one Ph.D. position.
Research Group Leader for the Algebraic Geometry Group at UiB during the Spring semester.
- 2017 Committee member in a Ph.D. defense at UiB.
Member of the *instituttrådet* (department council) of UiB.
Member of the hiring for one postdoc position.
Member of the hiring for one Ph.D. position.
Member of the hiring committee for filling an open tenure-track position at UiB.
Research Group Leader for the Algebraic Geometry Group at UiB during the Spring semester.
- 2016 Committee member in Ph.D. defense at KTH.
Member of the hiring for one postdoc position.

Committee member in Ph.D. defense at UiB.
Deputy Research Group Leader for the Algebraic Geometry Group at UiB.

SHORT VISITS:

01/2018	Università degli studi di Pisa, Italy.
07/2014	Mathematics Institute University of Bonn, Germany.
10/2013	CIMAT, Guanajuato, Mexico.
05/2013	University of Illinois at Chicago, Chicago (IL), USA.

MEMBERSHIPS & SERVICE:

- Member of the Nordic Number Theory Network.
- Referee for peer-reviewed journals (e. g. Math Z, JAG, Documenta Mathematica).
- Swedish Mathematical Society (lifetime member), Norwegian Mathematical Society (lifetime member), EMS (European Mathematical Society). UMI (Italian Mathematical Union), EWM (European Women in Mathematics - country coordinator).