Born: 1990. Email: filipazz@math.utah.edu

Nationality: Italian. Website: http://www.math.utah.edu/~filipazz/

Research Interests

Algebraic geometry, with main focus on: birational geometry, Minimal Model Program, moduli theory, positive characteristic methods, vanishing theorems.

Education

August 2014 - May 2019: Ph.D. in Mathematics, University of Utah.

Advisor: Christopher D. Hacon.

Thesis: Generalized pairs in birational geometry.

October 2012-July 2014: Master's student in mathematics at Università degli Studi di Pavia.

Grade: 110/110, cum laude. Advisors: G. Farkas, G.P. Pirola.

Thesis: The tautological ring of a jacobian.

October 2009-July 2014: undergraduate student in Sciences and Technologies class at IUSS, Institute for Advanced Study of Pavia.

Grade: "Excellent". Advisor: A. Canonaco.

Thesis: An introduction to derived categories: the Bondal–Orlov reconstruction theorem.

October 2013-May 2014: Master's student in mathematics at Humboldt Universität zu Berlin via Erasmus exchange program

October 2009-July 2012: Bachelor's student in mathematics at Università degli Studi di Pavia.

Grade: 110/110, cum laude.

Advisor: G.P. Pirola.

Thesis: Dal problema di Hermite al concetto di dimensione essenziale.

Pre-prints and Publications

Strong (δ , n)-complements for semistable morphisms, with J. Moraga, preprint, arXiv: 1810.01990 [math.AG], submitted.

On a generalized canonical bundle formula and generalized adjunction, preprint, arXiv: 1807.04847 [math.AG], submitted.

Some remarks on the volume of log varieties, preprint: arXiv: 1804.10971 [math.AG], to appear in Proceedings of the Edinburgh Mathematical Society.

Boundedness of log canonical surface generalized polarized pairs, Taiwanese J. Math. 22 (2018), no. 4, 813-850, DOI 10.11650/tjm/171204.

An example of Berglund–Hübsch mirror symmetry for a Calabi–Yau complete intersection, with F. Rota, Matematiche (Catania) 73 (2018), no. 1, 191-209, DOI 10.4418/2018.73.1.14.

Generic vanishing fails for surfaces in positive characteristic, Boll. Unione Mat. Ital. 11 (2018), no. 2, 179-189, DOI 10.1007/s40574-017-0120-6.

Invited Talks

Seminar Talks

November 2018, Johns Hopkins University, On a generalized canonical bundle formula and generalized adjunction.

October 2018, Princeton University, On a generalized canonical bundle formula and generalized adjunction.

October 2018, University of Utah, On a generalized canonical bundle formula and generalized adjunction.

October 2018, UC San Diego, On a generalized canonical bundle formula and generalized adjunction.

May 2017, SISSA Trieste, Some facts about generalized polarized pairs.

May 2017, Università degli Studi di Pavia, Generic vanishing fails for surfaces in positive characteristic.

Conference and Workshop Talks

December 2018, London-Tokyo Workshop in Birational Geometry II at Imperial College, On a generalized canonical bundle formula and generalized adjunction.

May 2018, Midwest Algebraic Geometry Graduate Conference at UIC, Some facts about generalized pairs.

April 2018, AMS Sectional Meeting at Portland State University, Generic vanishing fails for surfaces in positive characteristic.

Posters

October 2018, WAGS at UO, On a generalized canonical bundle formula.

June 2018, GAeL XXVI, Strasbourg, France, Boundedness of log canonical surface generalized pairs.

October 2017, WAGS at UCLA, Generic vanishing fails for surfaces in positive characteristic.

June 2017, Como, Italy, Generic vanishing fails for surfaces in positive characteristic.

Conferences and Workshops Attended

April 2019, Berkeley (CA), USA, WAGS.

January-February 2019, Berkeley (CA), USA, MSRI Introductory Workshop: Derived Algebraic Geometry and Birational Geometry and Moduli Spaces.

December 2018, London, UK, London-Tokyo Workshop in Birational Geometry II.

October 2018, Eugene (OR), USA, WAGS.

June 2018, Strasbourg, France, GAeL XXVI.

May 2018, Chicago (IL), USA, Midwest Algebraic Geometry Graduate Conference.

April 2018, Portland (OR), USA, AMS Sectional Meeting at PSU.

March 2018, San Francisco (CA), USA, WAGS.

February 2018, Barcelona, Spain, Workshop in Complex Algebraic Geometry.

October 2017, Los Angeles (CA), USA, WAGS.

June 2017, Como, Italy, Linear Systems on Irregular Varieties.

April 2017, Taipei, Taiwan, Singularities, Linear Systems, and Fano Varieties.

July 2016, Salt Lake City (UT), USA, Higher Dimensional Algebraic Geometry.

May 2016, Chicago (IL), USA, Local and Global Methods in Algebraic Geometry.

February 2016, Salt Lake City (UT), USA, Unramified Cohomology, Derived Categories, and Rationality.

October 2015, Seattle (WA), USA, WAGS.

July 2015, Salt Lake City (UT), USA, AMS Summer Research Institute on Algebraic Geometry.

June-July 2015, Catania, Italy, Pragmatic.

February 2015, Davis (CA), USA, WAGS.

December 2013, Bedlewo, Poland, Topology and Geometry of Configuration Spaces.

Fellowships and Academic Distinctions

Academic year 2018-2019: University of Utah Graduate research Fellowship (fellowship awarded by the University of Utah; 12 to 15 awards given annually across all graduate programs).

October 2009-July 2014: fellow at Almo Collegio Borromeo, merit alumn (the position as a student of the College is assigned through a national competition; the confirmation of the fellowship is on a merit base).

October 2009-July 2014: merit alumn at IUSS, Institute for Advanced Study of Pavia (fellowship assigned by the Institute for Advanced Studies of Pavia through a national competition; the confirmation of the fellowship is on a merit base).

October 2013-May 2014: awarded with Erasmus grant to write the master thesis in mathematics at Humboldt Universität zu Berlin.

May 2009: finalist at Italian individual National Mathematical Olympiad, awarded with bronze medal.

May 2009: finalist at Italian school-teams National Mathematical Olympiad.

May 2008: finalist at Italian school-teams National Mathematical Olympiad.

Teaching

University of Utah

Fall 2017: Calculus 2 (1220), Instructor.

Fall 2016: Calculus 1 (1210), Instructor.

Fall 2015 and Spring 2016: College Algebra for Business and Social Sciences (1090), Instructor.

Fall 2014 and Spring 2015: Engineering Calculus 1 (1310), Teaching Assistant.

Università degli Studi di Pavia

Spring 2012 and Spring 2013: Geometry 1, Teaching Assistant.

Fall 2011 and Fall 2102: Linear Algebra, Teaching Assistant.

Outreach

2018-2019: co-founder and co-organizer of the mentorship program for incoming graduate students.

2017-2018: co-organizer of the recruitment weekend.

2016-2018: organizer of the Algebraic Geometry Student Seminar.

2015-2018: contact for prospective and incoming international students.

Other Information

Languages: Italian (native), English (fluent), German (intermediate).

Computer skills: Linux (intermediate), C (intermediate), Macaulay2 (intermediate), Matlab (intermediate), Microsoft Windows (intermediate).