

Jacopo Ulivelli

Scientific interests

- Convex Geometry
- Geometric Aspects of Analysis
- Optimal Transport

Education

Dec. 2017-March. 2020.

**Master,
Mathematics**
University of Florence
– ITALY
Thesis: "A
Generalization of
Klain's Theorem to
Minkowski
Symmetrization of
Compact sets".
Supervisors: Gabriele
Bianchi, Paolo
Gronchi.

Sep. 2014- Dec. 2017.

**Bachelor,
Mathematics**
University of Florence
– ITALY
Thesis: "The
Fenchel-Legendre
Transform and the
Hopf-Lax formula".
Supervisor: Paolo
Marcellini.

Current situation

Nov. 2021 – June. 2022. **Visiting PhD Student**

Institute of Discrete Mathematics and Geometry, TU Wien.
Project funded by La Sapienza, University of Rome. Study of
valuations on convex functions and related geometric
inequalities supervised by Monika Ludwig.

Nov. 2020 – Today. **PhD Student**

La Sapienza, University of Rome.
Project Name: "Modern Aspects of Convex Geometry:
Symmetrizations and Valuations". Supervisors: Gabriele
Bianchi, Paolo Gronchi.

Publications

J. Ulivelli, (2021) A Generalization of Klain's Theorem to
Minkowski Symmetrization of Compact sets and related topics,
Canadian Mathematical Bulletin.
doi: 10.4153/S0008439521000904

J. Ulivelli, (In Preparation) Convergence Properties of
Symmetrization Processes.

J. Ulivelli, (In Preparation) From Convex to Hessian Valuations.
(joint work with J. Knoerr)

Communications:

2022:

Apr. 21st 2022: "From Convex to Hessian Valuations",
*Mini-Symposium on 'Geometric Probability and Valuation
Theory', TU Wien* Talk (25 min).

Mar. 31st 2022: "From Convex to Hessian Valuations",
Privatissimum, TU Wien Talk (45 min).

Mar. 18th 2022: "The Brunn-Minkowski inequality: how to shape a
crystal", *MATHtalks, Sapienza University of Rome*, Talk (1,5 h).

Jan. 28th 2022: "Convergence Properties of Symmetrization
Processes", *GIM seminars*, Talk (45 min).

2021

Dec. 9th 2021: "Geodesic Convexity and the Brunn-Minkowski inequality", *Privatissimum, TU Wien*, Talk (45 min).

Aug. 8th 2021-Sep. 3rd 2021: "Generalization of Klain's Theorem to Compact Sets", *CIME "Convex Geometry" (Cetraro)*, Poster Session.

Apr. 29th 2021: "Characterizing Converging Symmetryzation Processes", *Privatissimum, TU Wien*, Talk (45 min).

Mar. 15th 2021-Mar. 19th 2021: "Generalization of Klain's Theorem to Compact Sets", *Current Trends in Convex Geometry (Bremen, Murcia)*. Poster Session.

Feb. 22nd 2021-Feb. 25th 2021: "Generalization of Klain's Theorem to Compact Sets", *Munster Winterschool on Analysis and Applied Mathematics*. ☞ Poster Session .

Organizer:

☞ MATHtalks , La Sapienza, Univeristy of Rome.

Conferences/Workshops/Activities:

PhD Courses:

Nov. 2020-Jan. 2021: Nonlinear differential equations, Fabiana Leoni (La Sapienza, University of Rome).

Mar. 2021-Apr. 2021: Nonlinear Elliptic Equations, Filomena Pacella e Francesca De Marchis (La Sapienza, University of Rome).

Apr. 2021-May 2021: Introduction to Optimal Transport and Applications, Filippo Santambrogio (Tor Vergata University of Rome).

Mar. 2021-Jun. 2021: Optimal Control and Applications, Maurizio Falcone (La Sapienza, University of Rome).

Oct. 2021-Dec. 2021: Geometric Analysis, Monika Ludwig (TU, Wien).

May 2022: Spectral geometry of the Laplace operator, Luigi Provenzano (La Sapienza, University of Rome).

Conferences and Workshops:

Apr. 20th 2022- Apr. 22nd 2022: Mini-Symposium on 'Geometric Probability and Valuation Theory', TU Wien.

Sep. 5th 2021-Sep. 10th 2021: International Conference on Convex, Integral and Stochastic Geometry, Bad Herrenalb.

Aug. 30th 2021-Sep. 3rd 2021: CIME Summer School: "Convex Geometry", Cetraro.

Mar. 15th 2021-Mar. 19th 2021: Conference "Current trends in Convex Geometry", Bremen-Murcia (online).

Feb. 22nd 2021-Feb. 26th 2021: Winter School: Analysis and Applied Mathematics, Münster (online).

Jan. 11th 2021-Jan. 15th 2021: Winter School "The Interplay between High-Dimensional Geometry and Probability", Hausdorff Institute Bonn (online).

Research Visits:

Jul. 11th 2021- Jul. 18th 2021: Institute of Discrete Mathematics and Geometry, TU, Wien.

Nov. 2021-Today: Institute of Discrete Mathematics and Geometry, TU, Wien.

Grants:

2021/2022: Grant "Avvio alla Ricerca", La Sapienza, University of Rome.

2022: Grant "Assegno di Mobilita'", La Sapienza, University of Rome.

Teaching Experience

Aug. 2019-Oct. 2020: University of Florence. Exercise Classes for Calculus 1, Algebra 1 and Geometry 1, Bachelor Degree in Mathematics.

Jan. 2021-May. 2021: La Sapienza, University of Rome. Exercise Classes for Calculus and Biostatistics, Bachelor Degree in Biology.

May. 2021-Sep. 2021: La Sapienza, University of Rome. Exercise Classes for Mathematics, Bachelor Degree in Natural Sciences.

10/05/2022

F.to Jacopo Ulivelli