TOR VERGATA
UNIVERSITÀ DEGLI STUDI DI ROMA

Department of Mathematics
University of Rome Tor Vergata



MatMod@TOV
Excellence Project 2023-2027
NEWSLETTER
N°8 February 2026 – July 2026



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Presentation

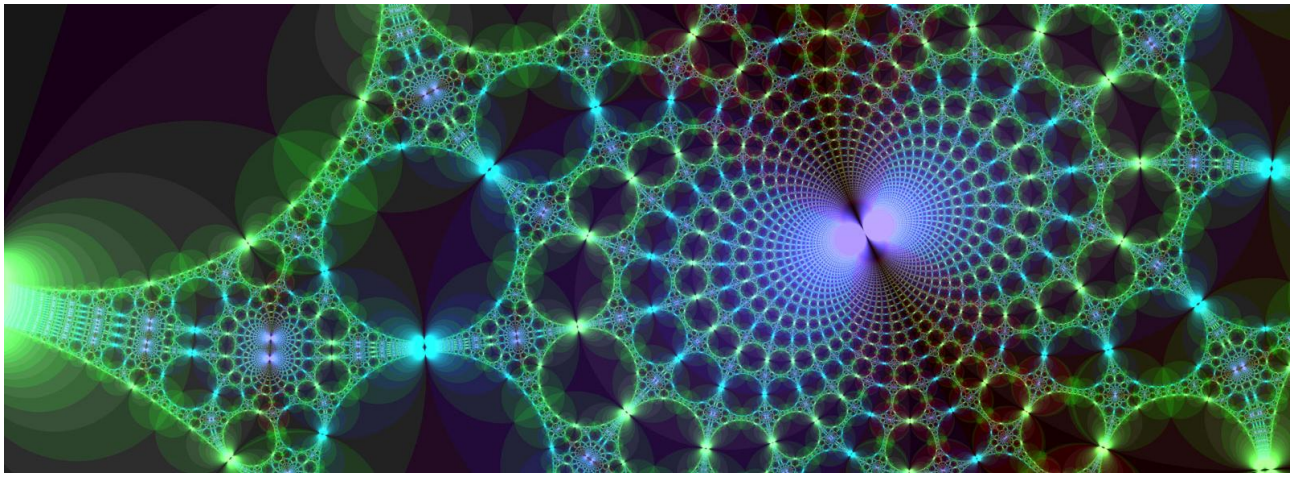
The Department of Mathematics of the University of Rome Tor Vergata is distinguished by first class research, often motivated by applications from theoretical physics, astronomy, aerospace, finance, technology and medical science, a high-level educational system, and the organization of events in the context of the so-called third mission of the University. For details we refer to the Department's website:
https://www.mat.uniroma2.it/index.php

The Department aims to increase its leading role in research, math education and math culture. The recently awarded national Excellence Project 2023-2027, denoted by MatMod@TOV, offers the opportunity to face new challenges, and its main objectives are:

- foster new collaborations between staff members on advanced research themes
- hire excellent staff members, able to participate in multiple research projects
- stimulate the interaction with excellent math groups, both in public research institutions and industry, and transform the Department into a strategic asset for the development of highly advanced mathematics and its application to specific problems
- increase the international visibility of the Department
- improve the Master and PhD Programs in Mathematics
- intensify the spreading of Math Culture

See the web page of the project MatMod@TOV: https://www.mat.uniroma2.it/progetto/

Recruitment



The MIUR Excellence Grant (CUP E83C23000330006, 2023-2027), awarded to the Mathematics Department of the University of Rome Tor Vergata (project MatMod@TOV), provides funds for Assistant and Associate Professorships as well as for Postdoc Positions.

All details at https://www.mat.uniroma2.it/progetto/recruitment.php

Professorships

We congratulate:

• Prof. David Asperò, appointed as Associate Professor in Mathematical Logic (Gruppo Scientifico Disciplinare 01/MATH-01 – Settore Scientifico Disciplinare MATH-01/A);

• Dr. Luca Franzoi, winner of the Tenure-Track Assistant Professorship (RTT) in Mathematical Analysis (Gruppo Scientifico Disciplinare 01/MATH-03 - Settore Scientifico Disciplinare MATH-03/A).

Postdoc positions

We congratulate:

• Dr. Okten Ahmed Yekta, winner of the (one year) Postdoc position (Assegno di Ricerca - I Fascia) in Probability (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/B) – Title: “Più variabili complesse e dinamica olomorfa”;

• Dr. Filippo Fagioli, winner of the (one year) Postdoc position (Assegno di Ricerca - III Fascia) in Geometry (Gruppo Scientifico Disciplinare 01/MATH-02 – Settore Scientifico Disciplinare MATH-02/B) – Title: “Modelli matematici a Tor Vergata MatMod@ToV”;

• Dr. Corentin Fierobe, winner of the (one year) Postdoc position (Assegno di Ricerca - III Fascia) in Geometry (Gruppo Scientifico Disciplinare 01/MATH-02 – Settore Scientifico Disciplinare MATH-02/B) – Title: “Modelli matematici a Tor Vergata MatMod@ToV”;

• Dr. Jacopo Tenan, winner of the (one year) Postdoc position (Assegno di Ricerca - I Fascia) in Mathematical Analysis (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/A) – Title: “Flussi geometrici e applicazioni”.

• Dr. Davide Redaelli, winner of the (one year) Postdoc position (Assegno di Ricerca - I Fascia) in Mathematical Analysis (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/A) – Title: “Equazioni alle derivate parziali in dinamiche di popolazioni e modelli di campo medio”;

• Dr. Giacomo Greco, winner of the (one year) Postdoc position (Assegno di Ricerca - III Fascia) in Probability (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/B) – Title: “Geometria dei campi aleatori ed applicazioni”;

• Dr. Chiara Bernardini, winner of the (one year) Postdoc position (Assegno di Ricerca - II Fascia) in Mathematical Analysis (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/A) – Title: “Problemi Differenziali Ellittici in Fisica e Geometria”;

• Dr. Veronica Danesi, winner of the (one year) Postdoc position (Assegno di Ricerca - III Fascia) in Mathematical Analysis (Gruppo Scientifico Disciplinare 01/MATH-03 – Settore Scientifico Disciplinare MATH-03/A) – Title: “Proprietà statistiche dei Sistemi dinamici”.

Research



Research Topics

During the period February 2026 – July 2026, MatMod@TOV organized a series of seminar talks/collaborations about the following main research topics:

1) Dynamical Systems and Statistical Physics
2) Quantum Field Theory and Quantum Information Theory
3) Mathematical Modelling and PDE's
4) Topological Data Analysis
5) Algebraic Geometry and Applications
6) Mathematical Modelling in Celestial Mechanics and Space Applications
7) Mathematical Modelling, Probability, Statistics and Machine Learning
8) Mathematical Modelling and Numerical Analysis
9) Mathematical Modelling and Climate Change

This is a partial list of the invited speakers/collaborators during the period:

D. Tsodikovich (ISTA Austria), Tim (ISTA Austria), P.M. Hajac (IMPAN, Warsaw, Poland), G. Goncalves de Castro (Univ. Fed. De Santa Caterina, Brazil), F. Qin (Beijing Normal University), L. Niederman (Université Paris-Saclay), A. Volberg (Michigan State University), E. Kowalski (ETH Zurich), E. Ruggiero (PUC Rio de Janeiro), G. Sharygin (IHES), Y. Ikeda (IHES), G. Piacenza (Université de Lorraine), L. Brasco (Università di Ferrara), C. Farsi (University of Colorado), W. Chen (University of Rome "Tre"), F. Gozzi (Luiss), T. Willwacher (ETH Zurich), A. Ciliberti (Ruh-Universität Bochum), P. Bordignon (Leiden University), A. Cueto (Ohio State University), N. Picenni (Università di Pisa), F. Bianchi (Università di Pisa), C. Fierobe (University of Rome "Tor Vergata"), R. Simon (London School of Economics and Political Sciences), V. Turchin (Kansas State University), B. Mills (York University), R. Salvati Manni ("Sapienza" University of Rome), D. Struppa (Chapman University), R. Martinez Vergara (University of Barcelona), A.F. Lopez (University of Rome "Tre"), C. De Concini ("Sapienza" Università di Roma), M. Franciosi

(Università di Pisa), B. Bolvig Kaer (University of Copenaghen), F. Tufo (Alma Mater Studiorum Università di Bologna), P. Frediani (Università di Pavia), F. Quattrocchi (LMO Orsay), D. Toshniwal (Delft University of Technology), S. Neshveyev (University of Oslo), K. Czudek (Gdańsk University of Technology), Rossmann (Galway University), T. Gobet (Universitè Clermont Auvergne), J. Vancostenoble (Universitè de Tolouse), S. Boucksom (Inst. de Mathématiques de Jussieu), M. Rordam (University of Copenaghen), F. Ferri ("Sapienza" University of Rome), A. Malchiodi (SNS Pisa), P. Piccione (University of Gothenburg), P. Giulietti (Università di Pisa), C. Hohlweg (Universitè de Quebec, Montreal), F. Brenti (University of Rome "Tor Vergata"), M.G. Martinez (Universidad de Sevilla), X. Roulleau (Universitè d'Angers), L. Guo (South-Central Minzu University, Wuhan), L. Reichel (Kent State University), Schiffmann (CNRS Paris-Saclay), X. Chen (ISTA Wien), A. Dogkas (Università di Pisa), A. Trusiani (University of Rome "Tor Vergata"), A. Carlotto (Università di Trento), B. Huang (University of Science and Technology of China USTC), G. Morsella (University of Rome "Tor Vergata"), A. Ricolfi (SISSA), G. Bolli ("Sapienza" Università di Roma), A. Del Donno (Univerzita Karlova), T. Weber (Univerzita Karlova), G. Tarantello (University of Rome "Tor Vergata"), S. Trapani (University of Rome "Tor Vergata"), G. Grisolia ("Sapienza" Università di Roma), K. Zhang (University of Toronto), F. La Piana (University of Saarland), A. Oliveira (University of Porto), L. Campo (University of Vienna), S. Tirabassi (Stockholm University), A. Brothier (University of Trieste), A. Chialastri (SISSA), E. Cabezas-Rivas (Università di València), D. Cadamuro (University of Leipzig).

(cf. also https://www.mat.uniroma2.it/seminari-new2.php?inizio=0&pagina=1)

Colloquium

Alessandro Carlotto: *The latest on the generic regularity problem for minimal subvarieties*.
Date: May 5th, 2026

Levi Civita Colloquium

Massimo Porrati: *Geometrization of Information: lessons from holography and quantum gravity*
Date: July 8th, 2026

Conferences and Workshops

MatMod@TOV is funding a wide activity of conferences/workshops/advanced lecture series/schools. Recent and planned events are listed below.

- May 12: Celebrating Women in Mathematics, Riding the wave of fluid instabilities
  Date: May 12th 2025
  Place: Department of Mathematics
  Organizers: M. Lanini, D. Marinucci, E. Strickland (University of Rome "Tor Vergata"),
  https://www.mat.uniroma2.it/may12.php

- Recent Progress **in Long-Time Dynamics in Kinetic Theory**
  Date: June 11th-12th 2026
  Place: University of Rome "Tor Vergata" Sede di Via Lucullo.
  Organizers: J. Ben-Artzi (University of Rome "Tor Vergata"), S. Pankavich (University of Colorado)
  https://sites.google.com/view/kinetic-rome-2026/home?authuser=0

- **Higher structures in Rome**
  Date: September 17th 2026
  Place: University of Rome “Tor Vergata”, Villa Mondragone, INDAM.
  Organizers: N. Kowalzig, P. Salvatore, S. Scaramuccia (University of Rome “Tor Vergata”).
  https://dellaquercia.github.io/conference/

- **Log-Correlated fields and SPDEs**
  Date: September 21th-22th 2026
  Place: University of Rome “Tor Vergata”, Villa Mondragone.
  Organizers: G. Cipolloni (University of Rome “Tor Vergata”), T. Rosati (Imperial College)
  https://sites.google.com/view/log-spde-rome/home-page

RoMaDS

(Rome Center on Mathematics for Modeling and Data ScienceS)

Recently founded by MatMod@TOV project, the aim of the center is to contribute to the development of mathematical research in the field of modelling and data science through the organization of seminars, conferences and doctoral coursers (https://www.mat.uniroma2.it/~rds/events.php).
Even more important is the possibility of establishing a permanent forum for the interaction between mathematical research and actual applications. In particular, the interdisciplinary nature of the center allows the creation of stable interactions between those involved in mathematical techniques of data analysis in different departments of the University. At the same time, our goal is to foster interactions with other research centers and even outside the strictly academic sphere.
https://www.mat.uniroma2.it/~rds/about.php

High level teaching activities



PhD Courses – Advanced Lecture Series

MatMod@TOV is funding a wide activity of Ph.D. courses/advanced lecture series

- **Consistent Hashing**
  A. Clementi (University of Rome "Tor Vergata", in partnership with RoMaDS)
  Period: May 12th, 14th 2026.

- **The Mathematics of Transformers: From Particle Systems to Control Theory**
  C. Letrouit (CNRS, Laboratoire de Mathématiques d'Orsay, in partnership with RoMaDS)
  Period: May 12th-14th 2026.

- **Flavors of Bicycle Mathematics**
  S. Tabachnikov (Penn State University)
  Period: May 21th, 22th 2026.

- **Learning in Transformers with Associative Memories**
  A. Bietti (Flatiron Institute NYC, in partnership with RoMaDS)
  Period: June 30th.

- **From Gaussian Limits to Feature Learning in Wide Neural Networks**
  D. Trevisan (University of Pisa, in partnership with RoMaDS)
  Period: September 24th,25th 2026.

  (cf. also https://www.mat.uniroma2.it/~rds/pastevents.php)

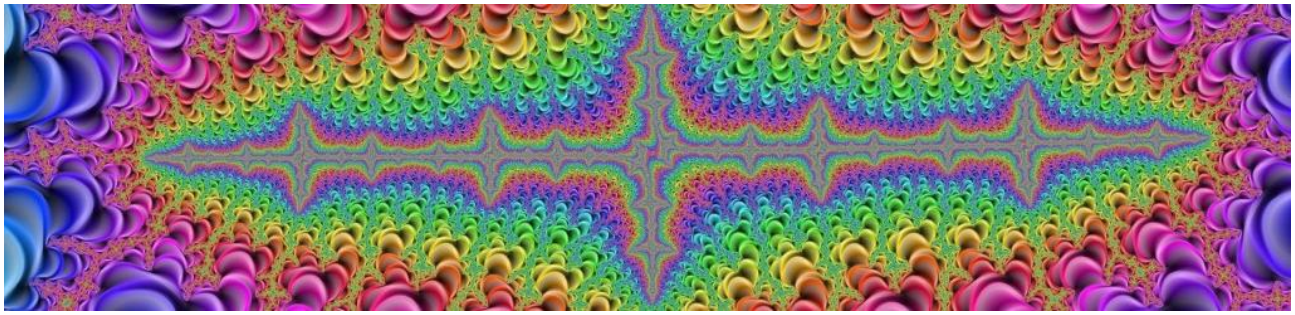
Grants and Curriculum of Excellence

- MatMod@TOV funded 3 prizes, for an amount of 2,000.00 euros each, for first year master's students enrolled in the academic year 2026/2027 and 3 degree prizes, for an amount of 2,000.00 euros each, for master's graduates in Pure and Applied Mathematics at Tor Vergata from July 2025 to June 2026. The latter award is aimed at master's theses satisfying at least one of the following conditions: a significantly original result; an efficient implementation and/or a particularly significant numerical experimentation; a clear and in-depth presentation of highly significant results.

- The project MatMod@TOV awards a €1,500 fellowship to a master's student to promote international mobility among those enrolled in its study programs. The fellowship will be granted to the candidate who has received an Erasmus+ study grant, based on the ranking established in the University's Erasmus+ call for applications for the academic year 2026/2027.

- Matteo Appetecchi and Valerio Monaco, both master's students in Pure and Applied Mathematics, attended summer schools in 2026. Matteo took part in the "7th Italian-Japanese Summer School in Mathematics" in Pisa from 14 to 25 September 2026 (with approximately €500 from the Department of Excellence to reimburse his meal and transport expenses) and in the "Modern Trends in Mathematics" school in Padova, from 8 to 12 June 2026. Valerio attended the Scuola Matematica Interuniversitaria (SMI) in Perugia from 19 July to 14 August 2026 (with €100 from the Department of Excellence to reimburse the registration fee).

General Activities



MatMod@TOV is also meant to fund renovations of rooms/laboratories of the Department, acquisition of modern equipment, research books, etc.

During the first semester of 2026, several purchases were finalized to enhance the Department's infrastructure and research activities. Specifically, the following initiatives were carried out:

- **A repair and maintenance service** that refurbished 4 laptops utilized by the Department staff for research purposes.
- **The acquisition of 9 new** IT workstations.
- **The procurement and installation** within the departmental computing center of a new high-performance computing (HPC) server featuring the following specifications (CIG Code: BA667075FC):
    - An HPE ProLiant DL365 Gen11 8SFF server;
    - A primary storage system comprising one (1) HPE MSA 2062 Storage Array 10GbE iSCSI SFF Storage;
    - A secondary ZFS 10GbE storage system for data archiving;
    - An APC Easy Rack enclosure.