

Davide Sclosa

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RESEARCH INTERESTS

DYNAMICAL SYSTEMS, COMBINATORICS, ERGODIC RAMSEY THEORY, GRAPHS AND NETWORKS, GROUP THEORY.

WORK EXPERIENCE



UNIVERSITY
OF CRETE

POSTDOC IN MATHEMATICS

University of Crete

Dynamical Systems with applications in Additive Combinatorics and Analytic Number Theory. With Nikos Frantzikinakis.

Nov 2024 - today



PHD IN MATHEMATICS

Vrije Universiteit Amsterdam

Dynamical Systems and Finite Graphs and Graph Limits. With Christian Bick.

Nov 2020 - Nov 2024

EDUCATION



MASTER'S DEGREE IN MATHEMATICS

University of Udine

Full Marks and Honors.

Jul 2020



BACHELOR'S DEGREE IN MATHEMATICS

University of Udine

Full Marks and Honors.

Dec 2018

PUBLICATIONS

- **IF YOU ARE THE SMARTEST PERSON IN THE ROOM, YOU ARE IN THE WRONG ROOM**
Graphs and Combinatorics, vol 41, n. 5, 2025
- **FROM COMBINATORICS TO GEOMETRY: THE DYNAMICS OF GRAPH GRADIENT DIFFUSION**
Geometriae Dedicata, vol. 219, n. 1, 2025
- **DYNAMICAL SYSTEMS ON GRAPH LIMITS AND THEIR SYMMETRIES**
with Christian Bick, *Journal of Dynamics and Differential Equations*, 1-36, 2024
- **BOUNDED POWER SERIES ON THE REAL LINE**
Journal of Mathematical Analysis and Applications, vol. 538, n. 2, 2024
- **COMPLETELY DEGENERATE EQUILIBRIA OF THE KURAMOTO MODEL ON NETWORKS**
Nonlinearity, vol. 37, n. 9, 2024
- **KURAMOTO NETWORKS WITH INFINITELY MANY STABLE EQUILIBRIA**
SIAM Journal on Applied Dynamical Systems Vol. 22, Iss. 4, 2023

- **ALGEBRAIC GROUPS OVER FINITE FIELDS: CONNECTIONS BETWEEN SUBGROUPS AND ISOGENIES**
Journal of Group Theory, 26 (6), 1143-1155, 2023
- **THE FINITENESS CONJECTURE HOLDS IN $SL_2(\mathbb{Z}_{\geq 0})$**
with Giovanni Panti, *Nonlinearity*, 34 (8), 5234, 2021

PREPRINTS

- **DIMENSION BOUNDS FOR SYSTEMS OF EQUATIONS WITH GRAPH STRUCTURE**
arXiv preprint arXiv:2410.06840, 2024
- **A RANDOM-WALK CONCENTRATION PRINCIPLE FOR OCCUPANCY PROCESSES ON FINITE GRAPHS**
arXiv preprint arXiv:2410.06807, 2024

CONFERENCES, SEMINARS, SUMMER SCHOOLS

- **Summer School on Additive Combinatorics, Number Theory, and Ergodic Theory**,
EPFL - Swiss Federal Technology Institute of Lausanne, Switzerland, 14/07/2025 - 18/07/2025
- **Perspectives on Ergodic Theory and its Interactions — Celebrating Vitaly Bergelson's Work and Impact**,
Institute of Mathematics of the Polish Academy of Sciences, Warsaw, Poland, 23/07/2025 - 27/07/2025
- **Analysis Seminar**,
University of Crete, Greece, 05/12/2024 (★)
- **NetDyn2024 Workshop**,
Lund University, Sweden, 26/08/2024 (★)
- **Dynamics Days Europe**,
Bremen, Germany, 29/07/2024 - 02/08/2024
- **Hypergraphs: Theory and Applications**,
The Alan Turing Institute, Isaac Newton Institute, London, UK, 22/07/2024 - 29/07/2024
- **One World Dynamics**,
Online, 05/06/2024 (★)
- **Networks Seminar**,
Oxford University, UK, 30/04/2024 (★)
- **Dynamical Systems Seminar**,
Imperial College, London, UK, 26/03/2024 (★)
- **Dynamics Seminar**,
Exeter University, Exeter, UK, 21/03/2024 (★)
- **Floris Takens Seminar**,
Bernoulli Institute, Groningen, Netherlands, 27/9/23
- **Dynamics Days Europe**,
Naples, Italy, 03/09/23 - 08/09/23 (★)
- **SIAM Dynamical Systems**,
Portland, US, 15/05/23 - 18/05/23 (★)
- **Oberseminar Dynamics**,
TUM - Technical University of Munich, Munich, Germany, 27/9/21 (★)

- **Lowlands Dynamics Seminar,**
Online, 28/4/2021 (★)

"Invited speaker" indicated by (★).

TEACHING, MENTORING, AND COORDINATION

- **TEACHING ASSISTANT**

Tutorials in Dynamical Systems, Discrete Mathematics, and Mathematical Analysis.

- **MENTORSHIP**

Co-Supervision Bachelor's student.

- **WORKSHOPS ORGANIZER**

- *Graph Stochastic Dynamics and Dynamic Stochastic Graphs (2024);*
- *Dynamics of Networks with Switching Topology (2023).*

- **HIRING COMMITTEE**

Tenure track position (2022), PhD position (2024).