Eduard STEFANESCU

Curriculum Vitæ

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Education

- 2023-ongoing **Doctoral degree in mathematics**, *Graz University of Technology*, Austria Advisor: Univ.-Prof. Christoph Aistleitner, PhD.
 - 2021-2023 Master degree in mathematics (GPA 1.00), University of Vienna, Austria Advisor: Univ.-Prof. Adrian Constantin, PhD, Title: The atmospheric Ekman spiral for piecewise-uniform eddy-viscosity.
 - 2017-2021 Bachelor degree in mathematics, University of Vienna, Austria Advisor: Univ.-Prof. Adrian Constantin, PhD, Title: Kepler's three laws.

Research experience

- May 2023 Scientific project staff, *University of Vienna*, Austria, Project: "Theory and Applications of Jul 2023 Partial Differential Equations", Project supervisor: Univ.-Prof. Adrian Constantin, PhD,
- Oct 2023 University assistant, *Graz University of Technology*, Austria. ongoing

Publications

- 2024 E. Stefanescu, The dispersion of dilated lacunary sequences, with applications in multiplicative Diophantine approximation, in *Advances in Mathematics*, Volume 461, 2025, DOI 10.1016/j.aim.2024.110062,
- 2024 E. Stefanescu, The atmospheric Ekman spiral for piecewise uniform eddy viscosity, *Physica Scripta*, Vol. 99, No. 9, DOI 10.1088/1402-4896/ad6d1b.

Preprints

2024 L. Roberti and E. Stefanescu, Global-in-time existence, uniqueness and stability of sulotions to a model of the antarctic circumpolar current, arXiv:2409.17013.

Invited Scientific Talks

Nov 2024 The dispersion of dilated lacunary sequences, with applications in Diophantine approximation, *Saint Etienne*, France (conference talk).

- Jun 2024 Global-in-time existence, uniqueness and stability of solutions to a model of the antarctic circumpolar current, *TU Graz*, Austria (seminar talk),
- Sep 2023 "The atmospheric Ekman spiral for piecewise-uniform eddy-viscosity", *LMU Munich*, Germany (seminar talk),

Seminar talks

- Apr 2022 "The Schwarzschild solution of the Einstein field equations and physical interpretations", *University of Vienna*, Austria (geometry of black holes seminar).
- Apr 2022 "Ricci flow and its applications to black holes", *University of Vienna*, Austria (analysis and geometry seminar),
- Jan 2022 "The minimum of the Willmore-functional for "nice" tori in 3*d*", *University of Vienna*, Austria (calculus of variations seminar),
- Jan 2022 "Tao's disproof of Fuglede's conjecture in dimension 5 and higher", *University of Vienna*, Austria (harmonic analysis seminar),
- Apr 2021 "The Cauchy problem of the Schrödinger equation in a General Domain", *University of Vienna*, Austria (student seminar),

Teaching experience

- 2024 WS Advanced functional analysis, (exercises)
- 2024 WS Mathematics for advanced material science, (lecture and exercises)
- 2024 WS Measure theory, (exercises)
- 2024 WS Differential equations for sound engineers, (exercises)
- 2024 SS Functional Analysis, (lecture and exercises)
- 2023 WS Differential equations for sound engineers, (exercises)
- 2019- Private lessons for university students in: Linear Algebra, Calculus, Differential Geometry,
- currently Fourier Analysis, Ordinary and Partial Differential Equations, Functional Analysis, Probability Theory.

Summer schools, additional courses

- 19.Jul 2024- Analysis on PDEs, Okinawa Institut of Science and Technologie, Japan, Lecturers: Prof.9.Aug 2024 Ugur Abdulla, PhD, Prof. Qing Liu, PhD,
- 27.May 2024- Spectral Theory, Fourier Analysis and PDEs, Bizkaia Aretoa, Spain, Lecturers: Prof. Mathieu
- 31.May 2024 Lewin, PhD, Prof. James Wright, PhD, Prof. Gigliola Staffilani, PhD,
- 11.Apr 2023- The Dynamics of Planetary-scale Fluid Flows, *University of Vienna*, Austria, Lecturers:2.June 2023 Univ.-Prof. Dr. Nathan Paldor, Univ.-Prof. Dr. David Dritschel.

- 25.Apr 2022- Introduction to the Mathematics of String Theory, University of Vienna, Austria, Lecturer:
- 29.Apr 2022 Dr. Pavel Safronov,
- 23.Aug 2021- Partial Differential Equations in Mathematical Physics, online event, Lecturers: Univ.-Prof.3.Sep 2021 Mag. Dr. Roland Donninger, Ass.-Prof. Dr. David Miro Fajman.

Languages

fluent German (native), English, Romanian (native).

basic Japanese, Spanish.