

VIVIANA GRASSELLI

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RESEARCH EXPERIENCE

Maître de conférences (associate professor) *2024 - present*
Institut Elie Cartan de Lorraine, Metz, France

Member of the Partial Differential Equations research team

Postdoctoral researcher *2023 - 2024*
Institut Elie Cartan de Lorraine, Metz, France

Member of the ANR-DFG French German project “Effective Approximation and Dynamics of Many-Body Quantum Systems ”

Advisors: Sébastien Breteaux and Jérémy Faupin

Ph.D. program under the supervision of Prof. Jean-Marc Bouclet *2020 - 2023*
Institut de Mathématiques de Toulouse, France

Subject : “Study of the resolvent of the perturbed Schrödinger operator ”

EDUCATION AND DEGREES

PhD in Mathematics *2023*
Université Paul Sabatier, Toulouse, France

Master’s degree in Mathematics *2020*
Università di Pisa, Italy

Final degree mark: 110/110 (with honours)

Bachelor’s degree in Mathematics *2017*
Università degli Studi di Perugia, Italy

Final degree mark: 110/110 (with honours)

TEACHING EXPERIENCE

Université de Lorraine, Metz France *2024 - 2025*

- Linear algebra and foundations of mathematics course for the Bachelor’s degree in Computer Science (*105h*)
- Analysis 4 exercises sessions for the the Bachelor’s degree in Mathematics (*25h*)
- Analysis 3 exercises sessions for the the Bachelor’s degree in Mathematics (*20h*)
- Numerical analysis exercises sessions for the the Bachelor’s degree in Mathematics (*10h*)

Université de Lorraine, Metz France *2023 - 2024*

- Mathematical tools course for the Bachelor's degree in Computer Science (30h)

Université Paul Sabatier, Toulouse, France

2022 - 2023

- Tutoring for Mathematics course of Bachelor's degree in Fundamental Sciences (60h)
- Numerical practice sessions for Linear Algebra course of Bachelor's degree in Fundamental Sciences (4h)

Université Paul Sabatier, Toulouse, France

2021 - 2022

- Tutoring for Mathematics course of Bachelor's degree in Fundamental Sciences (30h)
- Linear algebra course for the Bachelor's degree in Civil and Mechanical Engineering (30h)

Università di Pisa, Italy

2019 - 2020

- Tutoring for Mathematics course of the Bachelor's degree in Economics (60h)

PREPRINTS AND PUBLICATIONS

On the number of bound states for fractional Schrödinger operators with critical and super-critical exponent 2024

with S. Breteaux and J. Faupin, Submitted

On the definition of zero resonances for the Schrödinger operator with optimal scaling potentials 2023

To appear in Osaka Journal of Mathematics

Dispersive equations on asymptotically conical manifolds: time decay in the low frequency regime 2023

Annals of Global Analysis and Geometry

INVITED TALKS

Journée de l'équipe Analyse et Théorie des nombres 06/2024

Institut Elie Cartan de Lorraine, Metz, France

Séminaire de Physique Mathématiques 04/2024

Institut Camille Jordan, Lyon, France

Journées Jeunes EDPistes en France 03/2024

Institut de Mathématiques de Toulouse, France

Séminaire Équations aux dérivées partielles 02/2024

IRMAR, Rennes, France

Séminaire Dynamique Quantique et Classique 01/2024

Centre de Physique Théorique, Marseille, France

Séminaire EDP et Physique mathématique 01/2024
LAGA, Université Sorbonne Paris Nord, Paris, France

Kick-off Meeting of the ANR-DFG project Effective Approximation and Dynamics of Many-Body Quantum Systems 08/2023
Institut Elie Cartan de Lorraine, Metz, France

Séminaire EDP, Analyse et Applications 06/2023
Institut Elie Cartan de Lorraine, Metz, France

Differential Equation Seminar 05/2023
Department of Mathematics Graduate School of Science Osaka University, Osaka, Japan

Séminaire Problèmes Spectraux en Physique Mathématique 12/2022
Institut Henri Poincaré, Paris, France

IMT PDEs students seminar 06/2022
Institut de Mathématiques de Toulouse, France

IMT Analysis seminar 05/2022
Institut de Mathématiques de Toulouse, France

POSTER SESSIONS

Summer school "Rigorous Renormalization Group Analysis of Collective Phenomena in Fermionic Quantum Systems" 08/2024
Lake Como School of Advanced Studies, Italy

Summer school "Effective Approximation and Dynamics of Many-Body Quantum Systems" 06/2024
Institut Elie Cartan de Lorraine, Metz, France

ORGANIZING RESPONSABILITIES

Co-organizer of the PhD student seminar 2021-2023
Institut de Mathématiques de Toulouse

Co-manager of the IMT- EUR MINT- Labex CIMI Twitter account 2021-2023

PROGRAMMING SKILLS

C, Python, Matlab, Latex

SKILLS

Language	Italian (native speaker) English (proficient user) French (proficient user)	
Certifications	IELTS certificate, Overall Band Score: 8, CEFR Level: C1	2020