

# Diana-Elena Mirciu

---

## Curriculum Vitae

### Personal details

Citizenship Romanian  
Email diana-elena.mirciu@aau.at

### Research interests

- Regularization of ill-posed inverse problems
- Convex Analysis
- Optimization
- Functional Analysis

### Work experience

- July, 2023 – Present **Ph.D. student**, *Doc.funds doctoral school "Modeling-Analysis-Optimization of discrete, continuous, and stochastic systems"*, Department of Mathematics, University of Klagenfurt.
- 2022 – 2023 **Member of Research Grant PN-III-P4-PCE-2021-0690**, *"Variational analysis on cones and applications in vector optimization"*, Romanian Academy, Iasi Branch.

### Education

- July, 2023 – Present **Doctoral Degree**, *University of Klagenfurt*, Faculty of Technical Sciences.  
○ Scientific advisor: Assoc.Prof. Dr. Elena Resmerita
- 2021 – 2023 **Master's Degree**, *"Alexandru Ioan Cuza" University of Iasi*, Faculty of Mathematics, *I graduated with a perfect GPA in a 10 point system.*  
Specialized in Fundamental Mathematics for Education and Research  
○ Thesis: Elements of Nonsmooth Optimization  
○ Scientific advisor: Prof. Dr. Marius Durea  
○ We investigated Optimization methods for nonsmooth functions (focusing on the case of convex functions and locally Lipschitz functions) and applications.
- 2018 – 2021 **Bachelor's Degree**, *"Alexandru Ioan Cuza" University of Iasi*, Faculty of Mathematics, *I graduated as valedictorian.*  
Specialized in Mathematics  
○ Thesis: Elements of Asymptotic Analysis  
○ Scientific advisor: Prof. Dr. Marius Durea  
○ We studied the behaviour of several series and generalized integrals using Landau symbols, Wallis' Formula and Stirling's Formula.

---

## Publications

### Papers

- 2025 *Diana-Elena Mirciu and Elena Resmerita, Higher order error estimates for regularization of inverse problems under non-additive noise*, *Inverse Problems* **41**, 2025, 055018.  
<http://dx.doi.org/10.1088/1361-6420/add36b>

---

## Conferences, Workshops, Summer Schools

### Conferences

- July 28 – **Twelfth Applied Inverse Problems Conference (AIP 2025)**, *School of Applied Mathematics at Getulio Vargas Foundation (FGV EMap), Federal University of St. Catarina (UFSC), Inverse Problems International Association (IPIA)*.  
2025  
Rio de Janeiro, Brazil
- May 26 – **Eleventh International Conference "Inverse Problems: Modeling and Simulation" (IPMS 2024)**, *The Eurasian Association on Inverse Problems (EAIP)*.  
June 1, 2024  
Mellieha, Malta

### Workshops

- October 8 – **The annual meeting of the German-Speaking Inverse Problems Society (GIP)**,  
10, 2025 *Universität des Saarlandes*.  
Saarbrücken, Germany
- February 22, **Fourth Austrian Day of Women in Mathematics**, *Johann Radon Institute for*  
2024 *Computational and Applied Mathematics*.  
Linz, Austria

### Summer Schools

- August 5 – 9, **33<sup>rd</sup> Jyväskylä Summer School**, *University of Jyväskylä, Faculty of Mathematics*  
2024 *and Science and Faculty of Information Technology*.  
Jyväskylä, Finland
- July 3 – 4, **First Alps-Adriatic Inverse Problems Summer School**, *University of Klagenfurt*,  
2023 *Department of Mathematics*.  
Klagenfurt, Austria

---

## Conference talks

- October 8, **Higher order error estimates for regularization of inverse problems under**  
2025 **non-additive noise**, *The annual meeting of the German-Speaking Inverse Problems Society (GIP)*, *Universität des Saarlandes*.  
Saarbrücken, Germany
- July 28, 2025 **Higher order error estimates for regularization of inverse problems under non-additive noise**, *Twelfth Applied Inverse Problems Conference (AIP 2025)*, *School of Applied Mathematics at Getulio Vargas Foundation (FGV EMap)*.  
Rio de Janeiro, Brazil

---

## Seminar talks

- January 8, 2026 **Handling non-additive noise in Inverse Problems**, *Scientific Seminar on Nonlinear Analysis, PDEs, and Mathematical Modeling*, "Alexandru Ioan Cuza" University of Iași.  
Iași, Romania
- December 2, 2025 **The Primal Dual Hybrid Gradient algorithm revisited**, University College London.  
London, UK
- June 4, 2025 **Higher order error estimates for regularization of inverse problems under non-additive noise**, *Doctoral Seminar*, University of Klagenfurt.  
Klagenfurt, Austria
- June 12, 2024 **Regularization of ill-posed problems with non-standard penalty and data-fitting terms**, *Doctoral Seminar*, University of Klagenfurt.  
Klagenfurt, Austria
- November 17, 2023 **Decomposition of solutions for Inverse Problems**, *Status Seminar*, University of Klagenfurt.  
Klagenfurt, Austria

---

## Research visits

- January 2 - January 10, 2026 **"Alexandru Ioan Cuza" University of Iași, Faculty of Mathematics**, Iași, Romania.  
Visited Prof. Dr. Ionel-Dumitrel Ghiba
- November 15 - December 13, 2025 **University College London, Department of Computer Science**, London, UK.  
Visited Prof. Dr. Martin Benning

---

## Funding

- 2025 **Mobility Grant for funding a research visit at University College London**, University of Klagenfurt, Research Council.

---

## Service to the profession

- 2025 **Local organizer of the European Conference on Computational Optimization**, University of Klagenfurt.  
Klagenfurt, Austria
- 2025 **Local organizer of the 4<sup>th</sup> Alps-Adriatic Inverse Problems Workshop**, University of Klagenfurt.  
Klagenfurt, Austria

---

## Teaching experience

- October, 2025 – January, 2026 Selected topics in Numerics: Discrete inverse problems - Exercise class

March – June 2025 Analysis 2 for Engineers - Exercise class

October, 2024 – January, 2025 Analysis 1 for Engineers - Exercise class

## Awards

March, 2020 Silver Medal at the South Eastern European Mathematical Olympiad for University Students "SEEMOUS"

2011 – 2018 Various prizes at the county stage of the Mathematics Olympiad

2008 – 2016 More than 15 first prizes on National and International Piano Competitions

## Computer skills

Advanced  $\text{\LaTeX}$ , MATLAB, Python, C++, Microsoft Office Suite  
Basic HTML

## Languages

Romanian **Mothertongue**

English **Fluent**

German **Conversational**

French **Basic**

Brazilian **Basic**  
Portuguese

## Outreach and Public Engagement

2024, 2025 **Modeling days**, *University of Klagenfurt*.

- Visited a school and organized interactive activities, engaging students in solving practical mathematical problems as part of the initiative to inspire interest in the programs offered by the faculty.

## Professional training

2025 Workshop: Writing job applications for postdoc positions in mathematics/statistics

## Volunteering

2020 – 2021 Volunteer in the Association of Mathematics Students Iasi, Romania

2019 Volunteer in "Meaningful People Association", Iasi, Romania

## Interests

- Piano
- Reading
- Hiking
- Traveling