LLEDOS Benjamin, Maître de conférences, Université de Nîmes

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Working experience

September 2020 – August 2023 | **PhD, IMT, Toulouse, France.** PhD thesis under the supervision of Pierre Bousquet. Subject : "Propriétés qualitatives de solutions de problèmes dégénérés et singuliers en Calcul des Variations".

September 2023 – August 2024 | **Post-Doc, UC Louvain, Louvain-la-Neuve, Belgium.** Post-doc under the supervision of Heiner Olbermann: "Variational problems for curved surfaces". Subject: Gamma convergence, currents.

September 2024 – Today | **Associate professor, Nîmes University, Nîmes, France.** Currently working at MIPA.

Education

2020 – 2023 | **Ph.D., Université de Toulouse 3, Toulouse, France**
Thesis title: *Qualitative properties for solutions of degenerate and/or singular problems in calculus of variations.*

2019 – 2020 | **Second year of master's, Université de Toulouse 3, Toulouse, France** in Research and Innovation, graduated with high Honors.

2018 – 2019 | **Preparation of the French Agregation (highest french teaching degree), Université de Toulouse 3, Toulouse, France** Major : scientific calculus.

2017 – 2018 | **First year of master's, Université de Toulouse 3, Toulouse, France** in "Enseignement supérieur et recherche" graduated with Honors.

2014 – 2017 | **Bachelor's degree, Université de Toulouse 3, Toulouse, France** graduated with Honors.

Research Publications

Journal Articles

1. B. Lledos, "A uniqueness result for a two-dimensional variational problem," *Accepted in the Annales de l'institut Fourier,* 2024.

2. B. Lledos, "Interacting phase fields yielding phase separation on surfaces," *with Marziani, R. and Olbermann, H. submitted,* 2024.

3. B. Lledos, "Regularity of the stress field for degenerate and/or singular elliptic problems," *Accepted in the Annales mathématiques Blaise Pascal,* 2024.

4. B. Lledos, "A uniqueness result for a translation invariant problem in the calculus of variations," *J. Convex Anal.,* vol. 31, no. 1, pp. 121–130, 2024.

5. B. Lledos, "A uniqueness result for a non-strictly convex problem in the calculus of variations," *ESAIM Control Optim. Calc. Var.,* vol. 29, Paper No. 87, 32, 2023.

Talks and conferences

Conferences

2024-2025   **Polytech Lille**, Lille, France: Presentation at "Conference on Calculus of Variations in Lille - 4th edition".

2021-2022   **Université de Lorraine**, Nancy, France : Presentation at "Rencontre en calcul des variations".

2020-2021   **CIRM**, Marseille, France : Open questions at the virtual research school "Shape optimization, spectral geometry and calculus of variations".

Seminars

2023-2024   **Laboratoire de mathématiques d'Orsay**, Orsay, France : Presentation at Gdr CalVa.

   IRMP, Louvain-la-Neuve, Belgium : Presentation at the Analysis-PDE seminar.

2022-2023   **IMT**, Toulouse, France : Presentation at the Phd-PDE seminar.

   University of Warsaw, Warsaw, Poland : Presentation at the seminar of mathematical physics equations group.

   IMT, Toulouse, France : Presentation at the Analysis seminar.

2020-2021   **IMT**, Toulouse, France : Presentation at the Phd-PDE seminar.

Teaching

Université de Nîmes, Nîmes, France

2024-2025   **Linear algebra**: Lectures and tutorials, first year of Bsc.

Université de Toulouse, Toulouse, France

2022-2023   **Analysis**: Tutorials, first year of Bsc. **Linear algebra**: Practical works (Python), first year of Bsc.

2021-2022   **Analysis**: Tutorials, first year of Bsc. **Oral exams**: third year of Bsc.

2020-2021   **Analysis**: Tutorials, first year of Bsc.

Miscellaneous Experience

Awards and Achievements

2019   **Agrégation externe de mathématiques**, Rank 76.

Internships

2020   **IMT, Toulouse, France**. Internship under the supervision of Pierre Bousquet : "Introduction to the calculus of variations"

Miscellaneous Experience (continued)

2018   ▉   **IMT, Toulouse, France**. Internship under the supervision of Jean-Pierre Otal on the Beltrami equation.

2017   ▉   **IMT, Toulouse, France**. Internship under the supervision of Grégory Faye on ODEs.