

# Victor Trappler

*PhD Student in the AIRSEA team*

## Research interests

I am currently a PhD student of Grenoble-Alpes University in the AIRSEA team (Inria), under the supervision of Arthur Vidard, Élise Arnaud, and Laurent Debreu. My research interests revolve mainly around **Uncertainty Quantification**, and **Inverse Problems**. More specifically, I am interested in Robust Optimization and Optimization under Uncertainties (OUU), in the context of the **estimation of parameters under uncertainties**.

## Education

2017–Current **PhD Student**, *AIRSEA, Inria/LJK*, Grenoble, France.

*Title:* Parameter control in the presence of uncertainties

*Abstract:* Classical methods of parameter estimation usually imply the minimisation of an objective function, that overlooks the role of uncertain parameters. Strategies taking into account these uncertainties need to be defined

*Keywords:* Parameter Estimation; Optimisation under Uncertainties; Data Assimilation

*Advisors:* A. Vidard, É. Arnaud, L. Debreu

2015–2017 **MSc Mathematical Modelling and Computation**, *Danmarks Tekniske Universitet*, Kgs. Lyngby, Denmark.

*Focus points:* Applied mathematical analysis, Dynamical Systems, Scientific Computing, Statistical modelling, Stochastic simulations

2013–2017 **Engineering Degree**, *École Centrale Lyon*, Écully, Interests and courses oriented toward applied mathematics.

## Experience

Internships/Master thesis

2017 **Master Thesis**, *AIRSEA, Inria/LJK*, Grenoble, France.

*Title:* Parameter control in the presence of uncertainties: Robust estimation of bottom friction

*Advisors:* Uffe Høgsbro Thygesen (DTU), Élise Arnaud, Arthur Vidard, Laurent Debreu (Inria)

2015 **Intern**, *EDF R&D*, Chatou, France.

Developement of MATLAB tools for hydrodynamical model TELEMACH3D, with the purpose of estimating the residence time

Teaching experience

2017–2019 **Teaching assistant**, *Grenoble-Alpes University*.

Lectures in calculus, algebra, and computer lab sessions in statistics for undergraduates students.

Teaching time adding up to 138h:

- L2 STA301: 90h of lab work on statistics using the R language

- L1 MIASHS: 20h of exercise sessions on calculus

- L1 MAT104: 28h of lectures and exercise sessions on geometry and algebra

2017–2020 **Research and Teaching Label**, *Grenoble-Alpes University*.

Specific doctoral training for students wanting to pursue an academic career, mostly on specific teaching methods and reflexions on higher education

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🌐 [team.inria.fr/airsea/en/victor-trappler/](https://team.inria.fr/airsea/en/victor-trappler/) • 🌐 [vtrappler.github.io](https://vtrappler.github.io)

## Presentations and poster presentations

- 2020 Oral presentation at the annual GdR MASCOTNUM PhD meeting (postponed from march (Expected) 2020), Grenoble, France
- 2019 Oral Presentation at the Applied Inverse Problems Conference, in the mini-symposium "Dimension reduction in inverse problems", Grenoble, France
- 2018 Oral Presentation at the National Colloquium for Data Assimilation, Rennes, France
- 2018 Poster at the Workshop on Sensitivity Analysis and Data Assimilation in Meteorology and Oceanography, Aveiro, Portugal

## Relevant skills

Languages	French (Fluent)	Native
	English (Fluent)	TOEFL IBT score: 105/120 (2015)
	German (Intermediate)	Adapted for casual conversations
Sci. Comp.	Python 2.7, 3.5+	Advanced: numpy, scipy, scikitlearn & custom packages
	R	Intermediate
	Matlab	Intermediate
	FORTRAN	Basic
	C++	Basic
Utilitaries	L <sup>A</sup> T <sub>E</sub> X	
	bash	
	git	

## Miscellaneous

- 2020 **Representative of non-permanent employees, LJK, Grenoble.**  
Elected as a representative of the non-permanent employees (PhD, interns, postdocs fellows, engineers) of the Jean Kuntzmann Laboratory. Participation at the lab council