

# Vasiliki Stergiopoulou

## Curriculum Vitae

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📄 <https://vstergiop.github.io>

## Education

- Jan 2020– **PhD in Image Processing**, *Morpheme team (INRIA/CNRS/UCA)*.  
Dec 2022 (exp.) **TITLE:** Learning and optimization for 3D+T super-resolution in fluorescent microscopy  
**DIRECTOR:** Laure Blanc-Féraud, DR CNRS, Morpheme team  
**CO-SUPERVISORS:** Luca Calatroni, CR CNRS, Morpheme team & Sébastien Schaub, IR CNRS, LBDV
- 2013–2018 **BS & MS in Electrical and Computer Engineering**, *University of Patras, Greece*.
- Feb–Jul 2017 **MS degree courses in Automation Engineering**, *University of Bologna, Italy*.  
In the framework of ERASMUS+, European Exchange Program

## Research Experience

- June 2022 **Visiting PhD Student**, *Cambridge Image Analysis (CIA) Group, DAMTP, University of Cambridge*.  
**TITLE:** Plug-and-Play Methods for Super-Resolution in Fluorescence Microscopy  
**SUPERVISORS:** Carola Bibiane Schönlieb, Subhadip Mukherjee
- Dec 2018 – **Internship**, *Laboratory of Biomedical Image Processing, EPFL*.  
May 2019 **TITLE:** Solving Inverse Problems through Domain Decomposition  
**SUPERVISORS:** Michael Unser, Emmanuel Soubies
- 2017–2018 **BS & MS Thesis**, *Laboratory of Digital Signal and Image Processing, ECE Department, University of Patras*.  
**TITLE:** Synthetic Aperture Beamforming in Medical Ultrasound Imaging ([link](#))  
**SUPERVISOR:** Athanassios Skodras

## Honors and Awards

- Mar 2022 **Best-Paper Runner-Up Award**, *IEEE 19th International Symposium on Biomedical Imaging (ISBI)*, Kolkata, India, ([link](#)).

## Publications

- 2022 V. **Stergiopoulou**, L. Calatroni, H. de Morais Goulart, S. Schaub, and L. Blanc-Féraud, “Col0rme: Super-resolution microscopy based on sparse blinking/fluctuating fluorophore localization and intensity estimation,” *Biological Imaging*, vol. 2, e1. DOI: [10.1017/S2633903X22000010](https://doi.org/10.1017/S2633903X22000010).
- V. **Stergiopoulou**, L. Calatroni, S. Schaub, and L. Blanc-Féraud, “3D image super-resolution by fluorophore fluctuations and MA-TIRF microscopy reconstruction (3d-col0rme),” in *2022 IEEE 19th International Symposium on Biomedical Imaging (ISBI)*, pp. 1–4. DOI: [10.1109/ISBI52829.2022.9761572](https://doi.org/10.1109/ISBI52829.2022.9761572), **Best-Paper Runner-Up Award**.
- 2021 V. **Stergiopoulou**, J. H. d. M. Goulart, S. Schaub, L. Calatroni, and L. Blanc-Féraud, “COL0RME: Covariance-based l0 super-resolution microscopy with intensity estimation,” in *2021 IEEE 18th International Symposium on Biomedical Imaging (ISBI)*, pp. 349–352. DOI: [10.1109/ISBI48211.2021.9433976](https://doi.org/10.1109/ISBI48211.2021.9433976).

## Teaching

- 2020–2021 **IUT Nice Côte d’Azur**, *Côte d’Azur University*.  
–Initiation à la mesure du signal (Introduction to signal processing)  
–Acquisition et codage de l’information (Acquisition and coding of information)
- 2021–2022 **MSc in Data Science**, *Côte d’Azur University*.  
–Machine Learning in Image Analysis

## **MSc in Data Science and Artificial Intelligence, Côte d'Azur University.**

-Inverse problems in image processing

## **IUT Nice Côte d'Azur, Côte d'Azur University.**

-Signaux et Systèmes pour les transmissions (Signals and Systems for Transmissions)

-Numérisation de l'information (Digitization of information)

## **Talks**

- Oct 2020 **Invited Oral Presentation**, *GdR MIA Thematic day on "Non-Convex Sparse Optimization"*, at ENSEEIHT, Toulouse, France, ([link](#)).
- Oct 2021 **Oral Presentation**, *3IA PhD/Postdoc Seminar*, Online.
- Dec 2021 **Oral Presentation**, *Micro-blind startup meeting*, at CIRM, Marseille, France, ([link](#)).
- Mar 2022 **Oral Presentation**, *Journées Imagerie Optique Non Conventionnelle - 17ème édition (Non Conventional Optical Imaging Days - 17th edition)*, at Institut Langevin, Paris, France, ([link](#)).
- Mar 2022 **Invited Oral Presentation**, *2022 SIAM Conference on Imaging Science*, Online, ([link](#)).  
**Recipient of Student Travel Award in the form of a registration waiver.**
- Mar 2022 **Oral Presentation**, *IEEE 19th International Symposium on Biomedical Imaging (ISBI)*, Kolkata, India, ([link](#)).
- June 2022 **Invited Oral Presentation**, *Cambridge Advanced Imaging Centre*, Cambridge, UK.
- June 2022 **Invited Oral Presentation**, *MRC Laboratory of Molecular Biology*, Cambridge, UK.

## **Technical Skills**

Programming Matlab, Python  
Tools ImageJ/FIJI,  $\LaTeX$ , Javascript

## **Languages**

Greek **Native**  
English **Fluent**  
French **B2 level**