

# Meet the ESA Φ-lab team



## Nicolas Longépé - Core Team

M.Eng. in electronics and communication systems and the M.S. degree in electronics at the National Institute for the Applied Sciences, France. + PhD degree at Uni Rennes I. Worked at EO Research Center of JAXA, as a Japan Society for the Promotion of Science Fellow, and then as an invited researcher. Worked at CLS, France, as a research engineer in the Radar Application Division.



## Ana Raquel Carmo - ESA Trainee

Raquel Carmo is a passionate and driven individual with an academic background in Aerospace Engineering. Exploring new opportunities to pursue intellectual challenge. Raquel is eager to work in a multi-cultural environment and to develop strong relationships, while learning from experienced engineers and scientists, especially in the areas of artificial intelligence and machine learning.



#### Dawa Derksen - ESA Research Fellow

Master's degree in aerospace engineering at ISAE-Supaéro in 2016. He focused on Space Systems, in particular on Earth Observation. He studied Computer Science. This led him to a research internship at the French Space Agency (CNES). Dawa received his PhD in November 2019 and is currently a post-doctoral Research Fellow at the European Space Agency (ESA).





#### **Gurvan Lecuyer - ESA Research Fellow**

Research Fellow in Artificial Intelligence for EO after having spent a year at the Advanced Concepts Team at ESTEC. He graduated from the National Institute of Applied Sciences of Rennes, France.

Master's degree in Computer Engineering in 2016. He completed a Ph.D. in Computer Vision in 2020 at the University of Rennes and the Institute of Research and Technology b-com.



#### Dario Spiller - Visiting Researcher

Dario is a Post-Doc research fellow from ASI (Italian Space Agency) having guidance, navigation and control background and experience in artificial intelligence and metaheuristic algorithms. He has a MSc in astronautic engineering and a PhD in mechanical and aerospace engineering, both of them obtained at the University of Rome La Sapienza. During his PhD, Dario developed new techniques for optimal planning of trajectories based on artificial intelligence, especially on metaheuristic algorithms. Moreover, he developed novel strategies for star trackers concerning attitude determination and angular velocity estimation. His current post-Doc activity is focusing on applying artificial intelligence approaches for data mining of hyperspectral images (with a special focus on the PRISMA mission).



#### Athanasia Nikolaou - ESA Research Fellow

She holds a MSc in integrated climate system science and a PhD in planetary science. She has worked in the Advanced Concepts Team of the ESA in the NL and in the GAC. She is part of the international science consortium of the ARIEL space mission.

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### James Wheeler - ESA Research Fellow

His primary research interests are in SAR remote sensing, land cover change mapping, and large dataset analysis. As James works with SAR imagery over large areas and long time periods, he also develops tools for processing and analysing these datasets.

His activities within the  $\Phi$ -lab are a continuation of previous research into burned area detection, applying Deep Learning methods to support this, and the generation of SAR datasets and applications for other purposes, including VR. James also supports training and SAR processing among colleagues and visitors to the  $\Phi$ -lab.



#### Jamila Mifdal - ESA Research Fellow

Jamila Mifdal holds a PhD in applied mathematics for satellite image processing.