



Hélène BLEY DALOUMAN, Ph.D. researcher

1. Basic information

- Personal data

Name: Hélène-Josèphe BLEY DALOUMAN

ORCID: <https://orcid.org/0000-0002-0857-6974>

ResearchGate: <https://www.researchgate.net/profile/Helene-Bley-Dalouman>

Google Scholar: <https://scholar.google.fr/citations?hl=fr&user=EODNxhsAAAAJ>

- Highlights

As a holder of a PhD in Geography (specializing in Geomatics), I am particularly interested in remote sensing methods and tools that enable the characterization and monitoring of changes in land cover.

My research aims to better understand environments that are vulnerable to climate change and human pressures. It incorporates data from multiple sources, including satellite, geographic, environmental, and economic data. It also integrates a multidisciplinary approach that has enabled me to address issues related to the characterization of exotic forest stands in an island and rugged territory such as Réunion Island, as well as the detection and description of changes affecting the vegetation of summer grasslands in the French Alps. These works have been promoted in the form of publications and presentations at scientific events in France and abroad.

My skills in geomatics and teaching also lead me to teach in Bachelor's and Master's degree programs in Geography or Urban Planning, combining methodology and practice for the creation of maps (practical work introducing geographic information systems, including the acquisition, processing, and representation of geographic data).

2. Education

o Degrees

12/2023 **PhD in Geography** - Université de Montpellier, France

Thesis title: *Spatial approaches to characterizing forest stands in a tropical and constrained environment. Application to the use of Acacia Mearnsii for wood energy in Réunion.* Supervision: François BROUST, Annelise TRAN

06/2020 **Master's Degree in Geomatics** co accredited by Université de Montpellier, Université Paul Valéry, AgroParisTech

06/2018 **Bachelor's Degree in History** - Université Lyon 3

06/2017 **Bachelor's Degree in Geography** - Université Lyon 3

3. Professional experience

o Professional experience

12/2024 - 11/2025 **Postdoctoral Researcher:** Monitoring vegetation in the Alps pasture using remote sensing and semantic description techniques

Laboratoire Informatique de Grenoble (LIG) in Université de Grenoble Alpes (UGA)

09/2020 - 12/2023 **Doctoral Researcher**

UR BioWooEB and UMR TETIS in Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)

02/2020 - 09/2020 **Internship:** Implementation of procedures for large image tiling for the redesign of the geographic data infrastructure.

Occitanie Pyrénées en Intelligence Géomatique (OpenIG)

o Teaching experience

I supervised **40 hours of practical works (PW) at Bachelor and Master Level** at the Université Grenoble Alpes

09/2025 – 12/2025 Vacation teaching: Geographic and Geomatic Information (PW 20h)

01/2025 – 04/2025 Vacation teaching: Tools for the Representation and Processing of Spatial Data (PW 20h)

- Academical supervising

I have acted as an **educational supervisor for 1 Master's Dissertation.**

Rouabah Mohammed, 2025. Cinématique des glaciers rocheux en transition. Grenoble : Institut d'Urbanisme et de Géographie Alpine, 87 p. Mémoire de master 1 : Géomatique et Analyse Spatiale, IUGA.

- Academical examining

I have acted as an **external examiner for 1 Master's dissertation.**

Masimula Ntandokazi, 2025. Exploring the utility of sentinel-2 imagery in combination with environmental variables for monitoring Acacia mearnsii and Pinus pinaster in the fynbos biome. Cape Town: University of Cape Town, 54p. Master's degree: Ecological/Environmental Statistics, Department of Statistical Sciences, University of Cape Town.

4. Work valorization

- Publications and conference acts

Bley Dalouman, H., Bernard, C., Dusseux, P., 2025. Annotation sémantique de données de télédétection. Description de changements de végétation dans les alpages à partir de séries temporelles Sentinel-2, SAGEO. Avignon, France.

Xia, Z., Alleaume, S., de Boissieu, F., Dalle, J.-E., **Bley Dalouman, H.**, Broust, F., Tran, A., Durrieu, S., 2023. Potential of high-density LiDAR data for the characterization of *Acacia mearnsii* wood resource for the wood energy sector in Reunion Island. Presented at the SilviLaser 2023.

Bley Dalouman, H., Broust, F., Tran, A., 2023. Combining remote sensing and a geographic information system to map and assess the accessibility of invasive alien species forest stands: Case of *Acacia mearnsii* on Reunion Island. *Forests* 14, 2030.

Bley Dalouman, H., F. Broust, J. Prevost and A. Tran, 2021. "Use of Very High Spatial Resolution Imagery for Mapping Wood Energy Potential from Tropical Managed Forest Stands, Reunion Island." *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences* XLIII-B3-2021: 189-194.

- Conferences and academic talks (without proceedings)

Bley Dalouman, H. [Doctoriales (2021, 2022, 2023)]. « Modélisation dynamique à l'échelle territoriale de filières bois énergie. Application à l'analyse prospective de scenarios de valorisation d'*Acacia Mearnsii* à la Réunion. »

Bley Dalouman, H., F. Broust and A. Tran, 2022. « Cartographie d'espèces forestières exotiques envahissantes et analyse de leur exploitabilité en terrain tropical par des approches de télédétection et SIG. Application à l'évaluation du gisement d'*Acacia mearnsii* à la Réunion. ». *Les Rencontres Géomatiques de la Réunion et de l'océan Indien*, Saint Denis, La Réunion. sciencesconf.org:rgr2022:425629

5. Continued training and other educational aspects

- Language Skills

French: Native

English: B2