

PERSONAL INFORMATION

Thibault CATRY



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✉ Thibault.catry@ird.fr

Sex Male | Date of birth 12/01/1985 | Nationality French

JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR
PERSONAL STATEMENT

Research engineer at IRD (Institut de Recherche pour le Développement)

Optical and SAR remote sensing

WORK EXPERIENCE

- Member of the CNES (French Space Agency) TOSCA commission since December 2019
- Member of the GEO-HEALTH community
- Co-leader of the THEIA Scientific Expertise Centre (CES) dedicated to Remote-sensing, Health and Environment
- Member of THEIA Scientific Committee since September 2022
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- Since 2015 ■ Research engineer at IRD, UMR Espace-Dev, Optical and SAR remote sensing ■
- 2013-2014 ■ Remote sensing engineer at IRD, UMR Espace-Dev, assigned to SEAS-OI station: Development of methodologies and research activities based on SAR remote sensing, in the field of environmental sciences and natural hazards. 30 % Technical activities – 50 % Research activities – 20 % operational activities ■
- 2012 ■ Research assistant, University of La Réunion, LGSR: cartography of lava flows and study of the relationship between age and nature of lava flows and vegetal colonization of lava. Dating of recent lava flows using vegetal debris (ALEA project, supervision of Pr. D. Strasberg). ■
- 2011 ■ Research assistant, University of La Réunion, LGSR: numerical modelling of the influence of complex tidal cycle on the coastal aquifer on the western coast of La Reunion (INTERFACE project, supervision of Pr. JL. Join). ■
- 2007 ■ Internship at Laboratoire Geosciences Reunion (LGSR), University of La Reunion: Dynamics and impact of summit caldera collapse at Piton de la Fournaise volcano, La Réunion Island, France (M.Sc.). Supervisor: Pr. Laurent Michon (University of La Reunion) and Dr. Nicolas Villeneuve (Head of Piton de la Fournaise Volcanological Observatory). ■

EDUCATION AND TRAINING

- 2008-2011 ■ Ph.D thesis – Doctor Europaeus, speciality in Numerical Modelling for the Protection of the Environment and Volcanology
 ■ University of Bologna (Italy) and University of La Reunion (France)
 ■ Magma injections and destabilizations of basaltic volcanoes: a numerical study; application to La Reunion (Indian Ocean, France) and Stromboli (Tyrrhenian sea, Italy).
- 2007 ■ M.Sc., Earth Sciences, LMV - University of Clermont-Ferrand (France)
- 2005 ■ B.Sc., Earth Sciences, LMV - University of Clermont-Ferrand (France)

PERSONAL SKILLS

Mother tongue(s) French

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Italian	C2	C2	C2	C2	C2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills ■ good communication skills gained through my experience in various research departments working in various teams of researchers

Organisational / managerial skills ■ Good organisational and managerial skills developed through the supervision of Master and PhD students since 2013.

Job-related skills ■ Good experience in responding to projects and research calls and in the research of fundings

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificate(s)

- good command of office suite (word processor, spread sheet, presentation software) – proficient user
- good command of photo editing software – proficient user
- treatment of SAR images and InSAR processes using Diapason, SNAP – proficient user
- remote sensing softwares: ENVI, Ecognition, POLSAR-PRO – proficient user
- GIS: QGis – proficient user
- Numerical modelling and programming: Python, R - basic user
- Geophysics technics: differential GPS, self-potential measurements

Driving licence

B

ADDITIONAL INFORMATION

- Publications
- Presentations
- Projects
- Conferences
- Seminars
- Honours and awards
- Memberships
- References
- Citations
- Courses
- Certifications

Recent projects

SOS-MAMBO (Synergie Optique SAR pour le suivi de la mangrove dans la baie de Bombetoka, Madagascar), funded by CNES (French Space Agency), budget:210 000 €, principal partners: UMR Espace-Dev (IRD), University of Fianarantsoa (Madagascar), Centre National de Recherche sur Environnement (CNRE, Madagascar), Development and Environmental Law Center (DELC, NGO, Madagascar) - 2020-2024

DECOSAR (Détection des Embarcations Côtières par imagerie SAR), funded by Région Occitanie, budget: 425 000 €, principal partners: UMR Espace-Dev (IRD), UMR MARBEC (Univ. of Montpellier, IRD), La Telescop (SCOP, Montpellier, France, Réserve Marine du Golfe du Lion, Réserve marine de Banyuls, Réserve marine du Cap d'Agde - 2022-2025

F4F (Forest 4 Food), funded by MUSE (University of Montpellier), budget:400 000 €, principal partners: Centre pour l'Economie de l'Environnement de Montpellier (CEE-M, INRAE), CIRAD, UMR Espace-Dev (IRD), SOS-AMAZONIA (NGO, Brazil) - 2020-2023

Publications

Number of publications in international journals: 20

Hirsch index (Web of Science): 14

Demarchi, G., Subervie, J., **Catry, T.**, & Tritsch, I. (2023). Using publicly available remote sensing products to evaluate REDD+ projects in Brazil. *Global Environmental Change*, 80, 102653.

Cristaldi, M. A., **Catry, T.**, Pottier, A., Herbreteau, V., Roux, E., Jacob, P., & Previtali, M. A. (2022). Determining the spatial distribution of environmental and socio-economic suitability for human leptospirosis in the face of limited epidemiological data. *Infectious Diseases of Poverty*, 11(1), 1-19.

Oularé, S., Sokeng, V. C. J., Kouamé, K. F., Komenan, C. A. K., Danumah, J. H., Mertens, B., **Catry, T.** & Pillot, B. (2022). Contribution of Sentinel-3A Radar Altimetry Data to the Study of the Water Level Variations in Lake Buyo (West of Côte d'Ivoire). *Remote Sensing*, 14(21), 5602.

Ygorra, B., Frappart, F., Wigneron, J. P., Moisy, C., **Catry, T.**, Baup, F., ... & Riazanoff, S. (2021). Monitoring loss of tropical forest cover from Sentinel-1 time-series: A CuSum-based approach. *International Journal of Applied Earth Observation and Geoinformation*, 103, 102532.

Pottier, A., **Catry, T.**, Trégarot, E., Maréchal, J. P., Fayad, V., David, G., ... & Failler, P. (2021). Mapping coastal marine ecosystems of the National Park of Banc d'Arguin (PNBA) in Mauritania using Sentinel-2 imagery. *International Journal of Applied Earth Observation and Geoinformation*, 102, 102419.

Trégarot, E., **Catry, T.**, Pottier, A., El-Hacen, E. H. M., Sidi Cheikh, M. A., Cornet, C. C., ... & Failler, P. (2021). Coastal protection assessment: a tradeoff between ecological, social, and economic issues. *Ecosphere*, 12(2), e03364.

Trégarot, E., Caillaud, A., Cornet, C. C., Taureau, F., **Catry, T.**, Cragg, S. M., & Failler, P. (2021). Mangrove ecological services at the forefront of coastal change in the French overseas territories. *Science of the Total Environment*, 763, 143004.

Teillet, C., Pillot, B., **Catry, T.**, Demagistri, L., Lyszczarz, D., Lang, M., ... & Dessay, N. (2021). Fast Unsupervised Multi-Scale Characterization of Urban Landscapes Based on Earth Observation Data. *Remote Sensing*, 13(12), 2398.

Alexandre, C., Johary, R., **Catry, T.**, Mouquet, P., Révillion, C., Rakotondraompiana, S., & Pennober, G. (2020). A sentinel-1 based processing chain for detection of cyclonic flood impacts. *remote sensing*, 12(2), 252.

Defrance, D., **Catry, T.**, Rajaud, A., Dessay, N., & Sultan, B. (2020). Impacts of Greenland and Antarctic Ice Sheet melt on future Köppen climate zone changes simulated by an atmospheric and oceanic general circulation model. *Applied geography*, 119, 102216.

Marti, R., Li, Z., **Catry, T.**, Roux, E., Mangeas, M., Handschumacher, P., ... & Gong, P. (2020). A mapping review on urban landscape factors of dengue retrieved from earth observation data, GIS techniques, and survey questionnaires. *Remote Sensing*, 12(6), 932.

Roux, E., Ignotti, E., Bègue, N., Bencherif, H., **Catry, T.**, Dessay, N., ... & Barcellos, C. (2020). Toward an early warning system for health issues related to particulate matter exposure in Brazil: the feasibility of using global pm2.5 concentration forecast products. *Remote Sensing*, 12(24), 4074.

Pinel, S., Bonnet, M. P., S. Da Silva, J., Sampaio, T. C., Garnier, J., **Catry, T.**, ... & Seyler, F. (2020). Flooding dynamics within an Amazonian floodplain: Water circulation patterns and inundation duration. *Water Resources Research*, 56(1), e2019WR026081.

Catry, T., Li, Z., Roux, E., Herbreteau, V., Gurgel, H., Mangeas, M., ... & Dessay, N. (2018). Wetlands and malaria in the Amazon: Guidelines for the use of synthetic aperture radar remote-sensing. *International Journal of Environmental Research and Public Health*, 15(3), 468.