

## Ronan FABLET

Professor

47 year old

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### Research interests

**Data science, computational imaging, deep learning & dynamical systems, satellite imagery, ocean monitoring and surveillance, space oceanography, marine ecology**

### Educational and Professional background

**Since 2008:** Professor, **IMT Atlantique**; UMR Lab-STICC/OSE, Brest (France)

**2016:** Visiting professor, **IMEDEA** (CSIC-UIB), Mallorca (Spain)

**2010-2011:** Visiting scientist, **IRD/IMARPE** (Peruvian Sea Research Institute), Lima (Peru)

**2002-2008:** Research scientist, **Ifremer**, department of Fisheries Science and technology, Brest (France)

**2001-2002:** INRIA Postdoctoral grant, Computer Science Dept, **Brown University** (USA)

**1998-2001:** Phd in Signal Processing & Computer Vision at **Univ. de Rennes I/INRIA Rennes** (France)

**1996-1997:** MSc in Applied Math, **SUPAERO/Université Paul Sabatier**, Toulouse (France)

**1997-1994:** **SUPAERO** engineer (Engineer degree in space and aeronautics), Toulouse (France)

### Principal investigator of national and international research programs

AI Chair OceaniX 2020-2024, **ANR** (AI & Ocean dynamics)

MELODY 2019-2023, **ANR**, 7 partners (AI & Ocean dynamics)

IA-OAC 2018-2021, **LEFE/MANU**, 8 partners (AI for Ocean, Atmosphere and Climate Science)

SESAME 2017-2020, **ANR ASTRID**, 4 partners (Maritime traffic surveillance and big data)

TIAMSEA, 2015-2017, **Teralab**, 4 partners (ocean remote sensing big data)

SEACS 2015-2019, **Labex Cominlabs-Lebesgue-Mer**, 5 partners (stochastic models for ocean dynamics)

MOBI3D, 2014-2016, “pôle **Image & Réseaux**”, 5 partners (Object recognition on mobile apps)

EMOCEAN, 2013-2017, **ANR/NSFC**, 5 partners (Data-driven strategies for ocean remote sensing)

OTOCAL, 2005-2008, **ANR JC**, 5 partners (Otolith biomineralization)

AFISA, 2007-2008, **EU STREP**, 7 partners (Otolith imaging and fish aging)

**Academic collaborations:** Ifremer, IRD, IMARPE, IMEDEA, URI, Univ. Dalhousie, OUC, UW...

**Industrial collaborations:** ACRI-ST, iXBlue, ODL, CLS, Bookbeo, OceanNext, Mercator Ocean Intl

### Publication record (**H-index: 33**, source [googlescholar.com](https://scholar.google.com), > 3400 citations)

Publications in refereed journals (88) / in proceedings of refereed international conferences (116)

Selection of relevant publications:

S. Ouala, (...), R. Fablet. Learning Latent Dynamics for Partially-Observed Chaotic Systems. Chaos, 2020.

D. Nguyen, R. Vadaine, G. Hajduch, R. Garello, R. Fablet. GeoTrackNet-A Maritime Anomaly Detector using Probabilistic Neural Network Representation of AIS Tracks and A Contrario Detection. IEEE TITS, 2020.

F. Rousseau, L. Drumetz, R. Fablet. Residual Networks as Flows of Diffeomorphisms. JMIV, SI “Mathematical Foundations of Deep Learning in Imaging Science”, 2019.

R. Lguensat, P. Tandeo, P. Aillot, M. Pulido, R. Fablet. The Analog Data Assimilation. MWR, 2017.

A. Bertrand, D. Grados, (...), R. Fablet. Broad impacts of fine-scale dynamics on seascape structure from zooplankton to seabirds. Nature Communications, 5: 5239, 2014.

### Misc.

**Deputy Head of Lab-STICC (UMR CNRS) research lab** for IMT Atlantique (2015-2019)

Member of the program committee of **conferences IEEE ICASSP, IEEE ICIP, RFIA, EUSIPCO**

Member of the **scientific committees CGRA1 of the IRD** (2012-2015), **LEFE/MANU** (2018-), **CSFOF** (2018-), and **Mercator Ocean Intl.** (2020-) and of the **operational committee of EUR ISblue** (2018-),

**Associate editor** for IEEE JSTARS (2017-), Remote Sensing (2018-)

**Co-convenor of workshops and summer schools** (e.g., ACO’2016, DSE’2017, ORSS’2014-2016)

**Recipient of the “Palme Académiques” (2018)**

**Supervision:** >20 PhDs, >10 postdocs and research engineers