Ronan FABLET

Professor
45 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/TOMS, 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 (Enigneer degree in space and aeronautics), Toulouse (France)

Principal investigator of national and international research programs

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)
FI2O, 2009-2012, **CREATE Région Bretagne,** 5 partners (Data-driven strategies for ocean dynamics)
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

Publication record *(H-index: 27,* source googlescholar.com, > 2500 citations)

Publications in refereed journals (**80**) / in proceedings of refereed international conferences (**109)**
Selection of relevant publications:
F. Rousseau, L. Drumetz, R. Fablet. Residual Networks as Flows of Diffeomorphisms. JMIV, SI "Mathematical Foundations of Deep Learning in Imaging Science", 2019.
S. Ouala, C. Herzet, B. Chapron, A. Pascual, L. Gomez-Navarro, R. Fablet. Neural-Network-based Kalman Filters for the Spatio-Temporal Interpolation of Satellite-derived Sea Surface Temperature. Remote Sensing, 2018.
V.D. Nguyen, R. Vadaine, G. Hajduch, R. Garello, R. Fablet. Multi-task Learning for Maritime Traffic Surveillance from AIS Data Streams. 5th IEEE Int. Conf. on Data Science and Advanced Analytics, Oct. Turin, 2018
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
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-), of the **operational committee of EUR ISblue** (2018-)
Associate editor for IEEE JSTARS (2017-), Remote Sensing (2018-)
Co-convener of workshops and summer schools (e.g., ACO'2016, DSE'2017, ORSS'2014-2016)
Recipient of the "Palmes Académiques" (2018)
Supervision: 15 PhDs, >10 postdocs and research engineers