#### **Address**

28 rue des fauvettes 31520, Ramonville-St-Agne France

#### **Phone number**

+33 6 36 71 99 39

#### Mail

hlecomte@unistra.fr

### Website

hulecom.github.io

### **Programming**



# **OS Ability**

Linux ★★★★★
Windows ★★★★

## Languages

French \*\*\*\*
English \*\*\*\*
TOEIC (905)
Spanish \*\*\*\*

#### Driving Licence Full, clean

### **Hugo LECOMTE**

### RESEARCH ENGINEER IN GEODESY

**Geomatics Engineer** 

### **Education**

2016 - 2019 Master's Degree in Geomatics Engineering

 $3^{rd}$  year specialisation: Photogrammetry, Positioning and Measurement

of Deformations (PPMD)

Geodesy, Remote sensing, Photogrammetry and Programming

and also Land surveying, GIS, Cartography

2014 - 2016 Two-year preparatory courses for competitive examination to enter

Engineering school Grenoble

# **Professional Experience**

11/23 - 11/24 Research Engineer in geodesy / gravimetry

Gravimetry - GRACE - Oceanography

11/20 - 10/23 PhD student in geodesy ITES, University of Strasbourg

Magnetic, gravimetric and geodetic constraints on the dynamics of the

fluid core

**Gravimetry - Geomagnetism - GRACE** 

10/19 - 10/20 Research and Development Engineer

Creation and treatment of time series with Sentinel 1&2 images to

classify crop type (Monitoring PAC),

Geodesy instruction (Geodetic reference system: Lecture courses and

practical exercises)

Remote sensing - Geodesy - Database - Radar

## **Experience in Geomatics**

05/19 - 09/19 5-months Intership National Land Survey of Iceland

«Geodesy in a complex environment, Icelandic references frames»

**Geodesy - Programming** 

10/18 - 03/19 Geodetic programming project IFFSTAR

«Creation of an automatic computation software for a GNSS network

with RTKlib»

Python (PyQt), Bash, Make - GNSS

05/18 - 08/18 12-week Intership for the Paris Observatory SYRTE and LAREG laboratory

«Determination of a high spatial resolution geopotential on coastal area

using atomic clock measurements»

**Chronometric Geodesy - Programming (Python, Bash, Fortran)** 

10/17 - 01/18 Reasearch project

IGN, DPTS laboratory

**ITES** 

**ENSG** 

**LEGOS, Toulouse** 

«Calculate the indetermination on the determination of speed on GNSS station which realised the ITRF 2014»

Geodesy - Python Programming - Least-squares method- BigData

# **Extra Curricular Activity**

2020-2022 Member of Committee4PhD, PhD & postdoc lab committee

Organisation of seminars and coffee breaks for PhD & postdoc

## **Teaching**

2019-2023 General introduction to geodetic systems for 3rd year engineering students (PPMD) ENSG

2019 Coaching of computer programming projects for 3rd year engineering students ENSG

Refresher course in geodesy and field school for 1st year technical degree students

2020-2023 PhD additional education missions

**EOST** 

-Tutorial classes in space geodesy for 1st year engineering students (Radar & INSAR)
-Tutorial classes in geodesy for 2nd year engineering students (GNSS & reference frames)

-Tutoring classes in Mathematics for 1st year bachelor students

-Practical work in Python applied to geodesy for 1st year engineering students

-Field school for 2nd year bachelor students (LIDAR)

### **Collaborations**

2020-2023 Member of the GRACEFUL project ERC Synergy Grant N°855677

IPGP, ISTERRE, ITES, Uni. La Rochelle, Royal Obs. Belgium, MAGELLIUM

Half-yearly meeting

2020-2023 Active participation to gravity-toolkit python library

GitHub

Debugging and new functionalities implemented in the original T. Sutterley repository

#### **Publications**

2023 Uncertainty of Low-Degree Space Gravimetry Observations: Surface Processes Versus

Earth's Core Signal JGR: Solid Earth

H. Lecomte, S. Rosat, M. Mandea, J-P. Boy, J. Pfeffer

2023 Gravitational constraints on the Earth's inner core differential rotation

(in review) GRL

H. Lecomte, S. Rosat, M. Mandea, M. Dumberry

## Conferences

(full list on personnal website)

07/23	GRACE/SLR-based Gravity	Field and the Earth's Core: N	lew Estimates for Parameters of

Key Core Processes (invited talk)

H. Lecomte, S. Rosat, M. Mandea, M. Dumberry

12/22 Observability of the Earth's core signals and geomagnetic jerks in GRACE-based gravity

field. (poster)

**AGU Fall Meeting** 

**IUGG** 

H. Lecomte, S. Rosat, M. Mandea, M. Dumberry

10/22 Comparison of gap-filling temporal methods to improve GRACE and GRACE-FO time series.

(presentation) GSTM

H. Lecomte, S. Rosat, M. Mandea

12/21 On The Detectability Of The Earth's Core Signal Using Space Gravity Measurements.

(poster) AGU Fall Meeting

H. Lecomte, S. Rosat, M. Mandea

11/21 Comparaisons des solutions gravimétriques spatiales GRACE avec les surcharges

hydrologiques. (presentation) Colloque du G2

H. Lecomte, S. Rosat, M. Mandea

10/21 Comparison of SWARM and GRACE time-variable gravity field at low degree spherical

harmonics. (poster) SDQW

H. Lecomte, S. Rosat, M. Mandea