

Charles Troupin · Data analyst & modeler · Engineer in Physics (2005) · PhD in Oceanography (2011)

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Recent employments

- 2017/01– **Researcher**
University of Liège (ULg) · Liège, Belgium
Development of a user interface for data interpolation on a cloud system and implementation of *Web Processing Service*
- 2014/03– **Head of Data Centre facility**
2017/01 Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB) · Palma de Mallorca, Spain
- 2013/03– **Post-doctoral researcher**
2014/03 Mediterranean Institute for Advanced Studies (IMEDEA) · Esporles, Spain
Combined analysis of in situ, altimetry and HF radar data
- 2010/10– **Research assistant**
2013/02 University of Liège (ULg) · Liège, Belgium
Reconstruction of incomplete satellite images in the North Sea
- 2006/10– **PhD Candidate**
2010/09 GeoHydrodynamics and Environment Research (GHER) · University of Liège, Belgium
Study of the Cape Ghir filament using data analysis and numerical modelling

Python Julia Jupyter-notebooks User training
Leaflet Spatial data analysis OGC standards
Open data

Team leading Project management Data analysis
Data visualisation Recruitment Quality control
Scientific outreach Big data Training

Data analysis Python Satellite image processing
Matlab Bash Signal processing

Matlab Numerical modelling Data analysis
Multivariate statistics Teaching

Numerical modelling Spatial interpolation
Fortran Process-oriented modelling
Oceanographic campaign Tcl/Tk Bash Latex
Version control system

Skills and Competencies

Technical skills	Author or co-author of more than 20 articles on data analysis in international, peer-reviewed journals
Data analytics	Quality control · Filtering · Data mining · Statistics · Predictive modelling · Format conversion
Engineering	Fluid mechanics · Aerodynamics · Finite-element method · Atmospheric physics · Numerical simulations · Internal product development · Signal processing · Optimization · High-performance computing
Oceanography	Spatial interpolation · Time-series analysis · Principal component analysis · Database management · Satellite image processing · Singular events
IT skills	
Programming	Python: general (logging, virtualenv, unittest, regex), data analysis (numpy, scipy, pandas), geo-location (geopy, geoip, tweepy), data formats (json, netCDF4, csv, gpx, shapefiles), visualisation (bokeh, matplotlib, folium, plotly) Matlab/Octave: data reading and processing, plotting, geostatistics, interpolation Bash scripting: awk, cronjob, wget, ssh, ncftp Other: Julia, Fortran 77, 90, Tcl/Tk, JavaScript (Leaflet, Highcharts), MySQL, PostgreSQL
Web	HTML, CSS, markdown, AngularJS, D3, javascript, Jekyll, wordpress, Dokuwiki, Mediawiki)
Other tools	Version control (SVN, git) · LaTeX (documents, posters, presentations, leaflet) · Ocean-related software: Ocean Data View, DIVA (spatial interpolation), DINEOF (spatio-temporal interpolation of satellite images) · Image processing: Darktable, GIMP, ImageMagick, Inkscape, ffmpeg
Soft skills	
Management	Team leading · Planning and monitoring · Scientific and technical reporting · Adhering to deadlines · Writing specification documents · Applications for grants and supports
Communication	Public presentations in international conferences · Social networking · User training · Design of posters and leaflets
Organisation	Co-organiser of the 48th International Liège Colloquium on Ocean Dynamics in 2016 (200 participants from 40 countries) · Main organiser of several editions of the Diva workshop from 2007 to 2013
Languages	Native speaker in French · Daily use of Spanish, English and Catalan in the most recent working environments · Basic level in German

Personal interests

Photography · Trail and mountain running · Map editing (OpenStreetMap) · Travel blogging · Road cycling · Weather observation & forecast · UrbEx · Coaching