Charles Troupin · Data analysist & 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*

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

2014/03– **Head of Data Centre facility**
2017/01 Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB) · Palma de Mallorca, Spain

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

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

Data analysis · Python · Satellite image processing · Matlab · Bash · Signal processing

2010/10– **Research assistant**
2013/02 University of Liège (ULg)· Liège, Belgium
Reconstruction of incomplete satellite images in the North Sea

Matlab · Numerical modelling · Data analysis · Multivariate statistics · Teaching

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

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