

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

+32 498 155 998 (Belgium)  
charles.troupin@gmail.com  
<https://www.linkedin.com/in/charlestroupin>  
<http://orcid.org/0000-0002-0265-1021>

+34 638 054 012 (Spain)  
charles.troupin1  
<https://github.com/ctroupin/>  
<https://twitter.com/CharlesTroupin>

## Recent employments

2017/01–	<b>Researcher</b> University of Liège (ULg) · Liège, Belgium Development of a user interface for data interpolation on a cloud system	PythonJuliaJupyter-notebooksUser training
2014/03– 2017/01	<b>Head of Data Centre facility</b> Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB) · Palma de Mallorca, Spain	Team leadingProject managementData analysis Data visualisationRecruitmentQuality control Scientific outreachBig data
2013/03– 2014/03	<b>Post-doctoral researcher</b> Mediterranean Institute for Advanced Studies (IMEDEA) · Esporles, Spain <i>Combined analysis of in situ, altimetry and HF radar data</i>	Data analysisPythonSatellite image processing MatlabBash
2010/10– 2013/02	<b>Research assistant</b> University of Liège (ULg) · Liège, Belgium <i>Reconstruction of incomplete satellite images in the North Sea</i>	MatlabNumerical modellingData analysis Multivariate statisticsTeaching
2006/10– 2010/09	<b>PhD Candidate</b> GeoHydrodynamics and Environment Research (GHER) · University of Liège, Belgium <i>Study of the Cape Ghir filament using data analysis and numerical modelling</i>	Numerical modellingFortranSpatial interpolation Oceanographic campaignTcl/TkBashLatex Version control system

## Skills and Competencies

<b>Technical skills</b>	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
<b>IT skills</b>	
Programming	Python: general (loggin, virtualenv, urllib, regex), data analysis (numpy, scipy, pandas), geo-location (geopy, geoip, tweepy), data formats (json, netCDF4, csv, gpx), 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
<b>Soft skills</b>	
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