**Environmental Data Extraction and Analysis   
from Satellite Telemetry and Other Sources**

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Tasks before the workshop:

* Prepare a common GitHub repository (to be completed by 31st March). Link: <https://github.com/davidruizgarci/EnviroRWorkshop_REDUCE.git>
* Send by 31st March an email to participants to download packages, and request them to register in AVISO and CMEMS, they can be advised to bring their own datasets (lat, lon, date, time), although a common dataset (e.g. 10 location points) and catalog (e.g. SST and Chlorophyll) will be provided to ease the functioning of the workshop.

Schedule:

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| April 7th (9am-2pm) | | |
| 9.00-10.00am | Overview of environmental data sources | David March |
| 10.00-10.30am | Coffee Break | |
| 10.30am -12.00pm | Benthic Terrain Modelling Distance metrics (e.g. Sea Mounts, Shore, Colonies) | Sarah |
| 12.00-12.30pm | Break | |
| 12.30-2pm | Introduction to CMEMS and AVISO: check product access, types (analysis/reanalysis), scales (global/regional) resolutions, etc. | David Ruiz and David March |
| April 8th (9am-2pm) | | |
| 9.00-9.45am | Download data from CMEMS (new toolbox):  tips on spatial coverage (computational limitations, memory consumption, etc. | David Ruiz |
| 9.45-10.30am | Download data from AVISO | David March |
| 10.30-11.00am | Coffee beak | |
| 11.00am-12.00pm | Derivation of products: gradients, eddies, FSLE | David March |
| 12.00-12.30pm | Generation of environmental data stacks (David Ruiz) | David Ruiz |
| 12.30-1.00pm | Break |  |
| 1.00-1.45pm | Extraction of environmental data:  Extract for a 2D single raster (static)  Extract from 2D stack (dynamic variables) | Sarah |
| 1.45-2.00pm | Extract from a 3D raster (custom function) | David Ruiz |