

**2014 Ocean's Big Data Mining summer school on  
"Data mining in large sets of complex oceanic data: new challenges and solutions"**  
*8-9 Sep 2014 Brest, France*

This event is supported by Ifremer, Telecom Bretagne and Labex Mer and organized by:

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**T**he extraction of knowledge on ocean's dynamic at small and large scales as well as the development of regional and global indicators of climate variability are hot topics, for which new technological and methodological challenges recently emerged. Database have grown bigger and bigger (from the giga to the peta-scale) with rapid updating frequencies (from the year/month to the day/hour scale), and involve complex structures and higher dimensionality (from one file/parameter to millions of files and dozens of parameters on multiple locations). To the physical oceanographic community it has become challenging to manage, explore and extract knowledge out of such databases.

"Data Mining", "Database Knowledge Discovery" or "Artificial Intelligence" are the names given to the research discipline dedicated to face such challenges. The school aims at fostering interactions between the "Data Mining" and "Oceanographic" research communities and for the latter to broaden its view on available analysis tools.

**T**he target group of the school are postdocs, PhD students and research scientists, from all over Europe and beyond, from:

- the oceanographic community who wish to broaden their analysis skills of oceanic databases (such as from Argo, Cersat and SSALTO/DUACS). They should preferably be engaged in ocean physics studies, but work in a neighboring field such as atmospheric physics/meteorology and bio- or geo-sciences may also be considered.
- the data mining community seeking for new case studies and applications in the domain of environmental sciences.

OBIDAM'14 will consist of a series of invited talks covering both theoretical and practical aspects of data mining tools and methods, including applications to environmental science. It will also provide the opportunity to participants to present and discuss their research work during a dedicated poster session.

**Registration and Abstract submission for the poster session will be open from April 15th to June 15th, 2014**

**P**rogram at a glance:

*Monday, 8th*

- + "**Opportunities and Challenges in Mining Earth System Data**", Prof. Vipin Kumar (Univ. of Minnesota)
- + "**Statistical methods for detecting and attributing climate changes**", Dr. Philippe Naveau (LSCE)
- + "**Introduction to data mining. Example of remote sensing image analysis**", Prof. Pierre Gançarski (iCube)
- + **Poster** session and cocktail. To foster interactions between research communities, you are invited to present and discuss your research work.

*Tuesday, 9th*

- + "**SVM and kernel machines: linear and non-linear classification**", Prof. Stéphane Canu (INSA)
- + **Practice sessions**. Methods and algorithms introduced in the morning lecture will be implemented and tested against real case scenario and database. You can also bring in your own data and engage with the experts to start using the new technics.

## **Fees**

No registration fees.

For participants not residing in Brest, accommodations at the Vauban hotel (1 night/1 breakfast) will be free of charge and funded by our sponsors: Ifremer, Telecom Bretagne and Labex Mer.

## **H**ow to register to OBIDAM'14 ?

Go to the Registration page of the website and fill in the form. Note that the number of guests is limited, so you will have to provide a covering letter mentioning why you are interested in attending the event.

*Deadline for registration is June, 15th.*

## **H**ow to submit an abstract for the poster session ?

Go to the Submission page of the website and follow instructions. The number of posters to display being limited, the scientific committee will select posters based on their relevance to the event and its goal.

*Deadline for abstract submission is June, 15th.*

**S**electd participants and posters will be notified **no later than June, 30th.**

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