# SANGOMA: Stochastic Assimilation for the Next Generation Ocean Model Applications EU FP7 SPACE-2011-1 project 283580

## Deliverable 6.5: Ph.D Workshop 2 report

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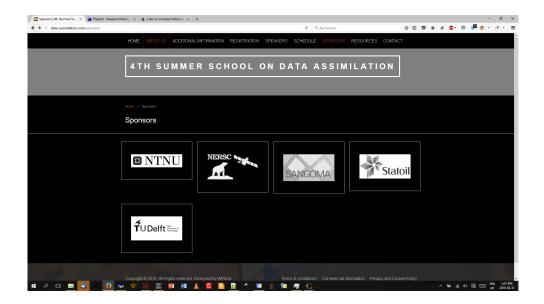
The 2nd PhD workshop was organised as part of the 4th summerschool on data assimilation. The summerschool was held in Brasov Romania from 20-7-2015 to 31-7-2015. There were 14 exports giving lectures on data assimilation and related topics. The lectures were given by Alin G. Chitu (TNO), Nils van Velzen (TU-Delft/VORtech), Roger Cooke (Resouces for the future), Christian Dinu (DHI Romania), Laurent Bertino (NERSC), Rahul M. Fonseca (TU-Delft), Martin Verlaan (TU-Delft/Deltares), Andeas S. Stordal (IRIS), Jon Seatrom (Resoptima), Ben Ale (TU-Delft), Remus Hanea (Statoil), Geir Evensen (Statoil), Arnold Heemink (TU-Delft) and Kees Lemmens (TU-Delft).

The SANGOMA lectures were given in the afternoon sessions of the first week. The lecture series started with a presentation on the SANGOMA project and contained an overview of the SANGOMA tools and the various frameworks of the partners. The other lectures in the SANGOMA series were based the the OpenDA course (part of the OpenDA distribution). This is a partial theoretical partial hands on course. The students learn to run data assimilation experiments in OpenDA and get insight in the behaviour of various data assimilation techniques and setting. The main topics are: running models and data assimilation algorithms, chaotic models, impact of measurement accuracy and time interval, steady state filtering, ensemble sizes, model calibration and adding your own model to the framework.

Approximately 26 students from various countries participated in the workshop, a.o, Russia, Norway, Romania, Germany, Denmark and the Netherlands. The PhD workshop and the summerschool was a very successful.

More information on the summerschool is still available at the website
http://data-assimilation.com