First Microwave Ocean Remote Sensing Training School at the SMOS Barcelona Expert Centre

Within the framework of the SMOS-MODE EU COST Action, the first Microwave Ocean Remote Sensing Training School was held at the SMOS Barcelona Expert Centre (SMOS BEC), Institute of Marine Sciences (CSIC), in Barcelona between September 30th and October 4th, 2013.

The school combined theoretical lectures and hands-on laboratory sessions covering key aspects of large-scale ocean monitoring, with a particular focus on SMOS and Aquarius sea surface salinity (SSS) data processing and applications. The Training School included topical lectures on the different processing levels (Level 1 by Ignasi Corbella, UPC; Level 2 by Jacqueline Boutin, LOCEAN; Level 3 by Meike Sena Martins, University of Hamburg; and Level 4 by Antonio Turiel, SMOS-BEC) and on SSS processes (Nicolas Reul, IFREMER).

Moreover, relevant topics of ocean remote sensing by passive and active microwave sensors, such as Sea Surface Temperature (Jordi Isern, IC3), Sea Ice (Georg Heygster, University of Bremen), Ocean Vector Winds (Marcos Portabella, SMOS-BEC), and Ocean Surface Currents and Sea Surface Height (Johnny Johannessen, NERSC) were also covered during the week.

The program was designed for Masters/PhD students, early career researchers, and professionals in ocean sciences and remote sensing. During the week, organizers and trainers experimented with a multidisciplinary mix of theoretical lectures and practical sessions, offered to a diverse audience

collected from several research fields and having different skills, experience and motivations regarding the use of remote sensing data.

Trainer George Heyster in his Introductory talk showing the conveyor belt

Trainer Jaquelin Boutin giving her lecture on SSS, level 2

Trainer Marcos Portabella lecturing ocean winds to an engaged audience

Trainer Nicolas Reul about to start his lecture on Oceanographic Processes with SMOS SSS data

The SMOS-MODE Training School attracted 29 trainees from all over the globe: 6 spaniards, 3 germans, 3 italians, 2 greeks, 2 norwegians, 2 turkish, and nationals from Hungary, India, Romania, Mongolia, Australia, China, France, Korea, Cameroon, Denmark, and Ukraine. The trainees belonged to research institutions from Spain (7), Italy (5), Germany (4), Norway (3), Greece (2), Turkey (2), Finland (1), Romania (1), Australia (1), Denmark (1), Portugal (1), and USA (1).

The trainees of the First Microwave Ocean Remote Sensing Training School (Sep 30th – Oct 4th) in front of the entry gate of the Institute of Marine Sciences of Barcelona

Asked about their level of satisfaction with this first Microwave Ocean Remote Sensing Training School, most trainees positively valued the format of the school, the range of topics, the quality of lectures, the opportunity to link with other researches, the location, the technical facilities and premises, and the several social events organized for the occasion. Only the format of the practical sessions did not received universal approval.

Despite of the inherent difficulties related with the

multidisciplinar collection of topics, the Training School was a clear success that leaves us with memorable experiences, some lessons to learn, and a network of contacts to explore and exploit in the future.

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