

## Small Grant from the MASTS Numerical and Experimental Hydrodynamic Modelling (NEHM) Forum

**Fellow :** Soizic Garnier, Strathclyde University

**Project Title :** IV International Summer School on Dynamics of Estuarine and Nearshore Systems

**Host :** University of Granada, Spain

**Dates :** From the 11th to the 21th of June 2019

The NEHM small grant helped me to fund my participation to the IV International Summer School on Dynamics of Estuarine and Nearshore Systems hold in Granada from the 11th to the 21th June 2019. The Summer School fee was 750€ covering accomodation, food an drinks, registration and lecture notes.



*Group picture at the excursion in Motril with the safety and rescue operations coast guards*

This summer school offered training in many domains of oceanography: waves, tides, turbulence, nearshore measurments, turbidity in estuaries, remote sensing, beach morphodynamics, sand transport modelling, biomorphodynamics, shelf dynamics... These courses definitively improved a lot my comprehension about coastal environment. Indeed before the Summer School I was familiar with estuarine physics (my PhD subject), but because my education is about General Physics and Computer Engineering, I lacked of general knowledge in oceanography. Also, because I am based in a Mathematics and Statistics department, this opportunity was especially valuable to me to fill in the broader context of what is done in the field and how my PhD fits in this perspective.

Through the 10 days of the Summer School, team working had an important place. The 21 students were distributed within groups of 3 students from different background to discuss questions after each lesson. We also worked on raw data analysis from towed ADCP and learnt how to process images from the Argus coastal video monitoring system that study shoreline variation. Finally, all the groups had the challenge to prepare and present during one day a project about a topic they are not familiar with. With my group we worked on beach morphodynamics, and we had to study and understand how sand bars transform and interact under different wave properties (amplitude, period and angle of incidence). For that we used a provided morphodynamic stability model under different waves and beach morphology scenarios. All these exercises made me realise that my PhD taught me general working methods that help me to be flexible and efficient at a variety of task and fields. Working with a team was also a refreshing experience, because PhD work can often be lonely.

Finally this was a great opportunity to develop my network by meeting researchers and PhD students from all around the world. Notably I could expand my connections into the European community which was one of my aim during this travel. These occasions were great vectors for diffusion and exchange of ideas, in particular it showed me more possibilities for my professional career.

**Award Size and expenditure :**

**(a) MASTS NEHM small grant**

78% Summer School fee: £500

**(b) University of Strathclyde**

22% Summer School fee: £142

Flight : £140

Bus : £25

1 night hotel: £45

**Subtotal : £352**

**TOTAL: £852**