

Image Analysis and Spatial Statistics (IASS) - Spring 2016 ROBEX online course

Week 1 – Welcome!

Hi there! Thanks very much for showing interest in taking this testrun of the ROBotic Exploration of Extreme environments (ROBEX) online course in image analysis and spatial statistics.

The aim of this course is to introduce you to a number of free software applications or techniques which can be used to analyse images collected in a variety of ways from a variety of locations. ROBEX is an exciting ongoing research project (<http://www.robex-allianz.de/en/>) which is aiming to develop new and improved techniques for using robots to explore extreme locations, such as deep underwater and the surfaces of other planets. This course has been developed within the framework of ROBEX and wherever possible will relate or use images collected via their systems in the educational material.

10 weeks is a short period, so please feel able to email myself, the main instructor, at any time if you want suggestions or assistance in a particular direction : autun.purser@awi.de. I am a postdoc researcher often using robot or deep sea images in research.

How the course will run:

Each week you will receive an email out with some instruction / .pdfs etc. Commonly there is a file for both 'planetary' information and tasks, and for 'marine' information and tasks. These will refer to the course website for the appropriate week (such as: <http://imageanalysis.weebly.com/week-1.html#/members/>) where download links, required files etc. may also be listed at the bottom of the page.

During the first weeks of the course you will be introduced to some applications and techniques for image analysis, and in the later weeks you will start to think about how to use these in your own research questions, and take on a small research task to carry out for completion in week 10.

There is a course forum on the website (the Spring 2016 folder is for this class), which will be accessible at the bottom of each weeks page, so feel free to join this. You will need to file some bits of homework and answers to this forum.

When required, skype meetings can be set up to discuss ongoing work etc.

What I will learn during the course:

You will get some hands on experience with techniques and applications used by active scientists, which will hopefully be useful to you in the future. You will also pick up some ideas on how to approach some research questions yourself too.

Good luck with the course!

Dr Autun purser (autun.purser@awi.de)