

136th European Study Group with Industry

May 14 – May 18, 2018

<https://sites.google.com/view/esgi-laquila-2018/home>

Gran Sasso Science Institute L'Aquila

Problems and Companies

The 136th edition of ESGI did welcome three companies presenting problems that can be allocated in different areas of applied mathematics ranging from fluid dynamics / continuum mechanics to optimization.

- COOP Liguria: INCREASING EFFICIENCY OF ON-LINE SHOPPING BY OPTIMIZING THE STAFF SCHEDULE
- FINCANTIERI: CABLE ROUTING ONBOARD OF SHIPS
- PROCESSI INNOVATIVI: FLUID DYNAMICS IN AN UPDRAFT MOVING-BED GASIFIER FED WITH REFUSE DERIVED FUEL (RDF)

Please see the official webpage for more detailed information regarding the problems; participants were given a booklet containing abstracts.

Participants

A number of 49 participants attended the workshop among them 37 PhD students / Post-Doc and 6 senior researchers as well as 6 representatives for the companies. The majority of the participants were external affiliated to foreign universities. The organizing and scientific committee selected the participants in collaboration on the basis of their CV. Moreover, the committees succeeded in recruiting some senior experts to give valuable input for developing ideas how to tackle the problems. All external participants have been provided funding for both, local and travel expenses by the funding of MI-Net / COST and Gran Sasso Science Institute.

Program and Venue

The program has been closely oriented by the usual format of the ESGI workshop. During the opening the participants have been welcomed by the rector of GSSI Prof. Eugenio Coccia, by Prof. Marco di Francesco (University of L'Aquila) and by Prof. Rodolfo Repetto (University of Genova) on behalf of the organizing committee. The organizing committee decided to include a mid-week short presentation of preliminary results that turned out to be useful for the exchange of ideas. The working groups were allocated in the same building in meeting rooms furnished with blackboards or whiteboards and projector. Participants had the opportunity to interact during coffee breaks (twice a day), lunch at the canteen and the social dinner held on Wednesday. Representatives of all companies have been present the entire week that turned out to be very useful.

Results

All groups developed interesting ideas and results that have been much appreciated by companies. The working groups did manage well to organize in an autonomous way their activity, all and especially young participants were highly motivated to obtain results. In particular, participants from Oxford with significant experience from previous ESGI gave an important contribution to the success of their study groups. The three groups divided themselves in subgroups in order to carry out different approaches to the problems. The organizing committee expects the final reports to be sent in within June 18.

Dissemination

The communication office of GSSI informed about the ESGI on the institute webpage, e.g. [here](#), and on the social media channels (Twitter, Facebook) before and during the event. Local online newspaper reported about the event. Information is also available on the official [webpage](#) of the ESGI. If requested, photos of the event may be provided. The event was also advertised by MI-NET (webpage and Facebook).

Feedback

After the event, participants were asked to fill in an online form evaluating the workshop and its organization. The feedback has been very positive pointing out good organization and interesting problems.