

Structured Soft Interfaces: Caught between multi-scale simulation and application

23 – 27 January 2017

1. Description and aims

Advanced materials design aimed at a more sustainable use of natural resources and improved health care greatly rely on obtaining a fundamental understanding of the role of soft structured interfaces in the desired function. This workshop aimed at bringing together experts in soft matter research, from both the theoretical/computational and experimental community, to discuss peculiarities and commonalities in interfacial phenomena and explore recent advances in the theoretical/computational/experimental study of soft structured interfaces. An important goal was to provide time and a stimulating atmosphere to explore and discuss new collaborations.

2. Tangible outcome

The workshop was very well received by the participants, and many participants expressed some surprise about the extra-ordinary scientific level of contributions (even of PhD students). The insight that the discussions gave in tricks-of-the-trade in different flavours of computational and experimental research in this field was particularly valued, in addition to the possibility that the workshop offered to participants for private discussion with scientists of name & fame positioned somewhat out of the main line of work. Many expressed the opinion that the workshop was unique in this aspect. As a tangible outcome, roughly 50% of the participants reported the start of new projects based on knowledge gained during the workshop and/or the start of a collaboration with other participants, which were the two main goals of the workshop.

3. Scientific breakthrough

The participants reported several scientific breakthroughs in their private discussions during the collaborative sessions, leading to the definition of a number of new collaborative efforts. In general, a major scientific breakthrough was the realisation expressed by many participants that stepping out of their comfort zone, by acknowledging and discussing issues in a particular field of research in great technical detail with experts in adjacent fields, is truly possible and valuable. As such issues are seldom discussed out in the open, being either too familiar (for specialists) or too technical (for a broad audience), they had the advantage of bringing everybody up to speed in only one week! The organisers are quite certain that the wealth of information exchanged during this week will seed several new scientific developments.

4. "Aha" moments

Many participants reported "aha" moments to the organisers. The key "aha" moment for the organisation was the finding that the original plan, i.e. bringing together experts in this rather broad field, indeed worked as intended: that the assembled group truly greatly enjoyed the scientific talks and discussions, as well as the egalitarian way in which everything was organised. With respect to the latter, many reported to enjoy the lack of 'big ego's' among the participants.

Organisation/Format:

5. Format of the workshop

Prior to the workshop, the organisers identified a need for rebalancing the schedule, in particular the length and setup of the general discussions. We decided to shorten these sessions and to postpone them to later in the week, thus promoting a more focussed discussion about the topics raised in the plenary contributions. In particular, for the purpose of collaboration, scientific input on the various subtopics was considered more important than extensive general discussion. During the evaluation at the end of the workshop, it was indeed noted that particularly the relaxed atmosphere during the Q&A following each talk was greatly appreciated and gave everybody the opportunity to directly respond to any issue of general interest. In addition, the free time in the program allowed everybody to interact, providing a firm basis for the discussion of possible collaborations. The final schedule, slimming down the long general discussion sessions to two days, was thus very successful. We found that 30 minutes oral presentations followed by 15-20 minutes discussion are most effective.

6. Other comments

The facilities of the Lorentz Centre and the workshop dinner were greatly appreciated and contributed to the relaxed atmosphere that was felt by all participants. Communication with the LC could be improved. We recommend the instalment of a (web-based) management tool that provides up to date information on the financial status and any undertaken LC actions, to avoid miscommunication. After all, for such small workshops, the organising committee deals with most of the communication with participants and should always have proper information at their disposal, e.g. for reimbursement purposes.

Ian Hamley Reading, UK

Ignacio Pagonabarraga Barcelona, Spain

Friederike Schmid Mainz, Germany

Agur Sevink Leiden, The Netherlands

Ryoichi Yamamoto Kyoto, Japan