

# ESF RESEARCH CONFERENCES

## Rapporteur Report

Partnership:	ESF LFUI
Conference Title:	Graphene week 2011
Dates:	<b>24-29 April 2011</b>
Chair:	Vladimir Falko, Andre Geim, Karsten Horn, Sankar Das Sarma
Rapporteur:	Ana Helman

### General Comments

Any general comments you might have concerning the conference, your role, the scientific area covered by this conference, etc.

The conference was well organized and had a broad audience from Europe, US and Asia which is very positive since it offers the opportunity to European researchers to follow and discuss the most recent development with colleagues working in the field worldwide. Seen the high interest and the number of applications received, it is clear that future events gathering this community need a location capable of hosting more participants.

### Quality of Scientific Programme, Presentations and Discussion

Comments on the balance and scope of the scientific programme, the scientific quality of the presentations and discussions.

The scientific programme and the overall quality of presentations were excellent. Several participants stressed the fact that there were many new results presented which was particularly well appreciated. Presentations were in most cases adapted to the audience and young researchers were given the opportunity to present their work.

The geographical balance of speakers was also appropriate since it covered Europe (50%), US (34%), Asia (11%) and other (5%) regions. Almost half of the presentations from European speakers were given by members of groups participating in the EuroGRAPHENE EUROCORES programme. The participation of female researchers was not very strong and there were only 4 female speakers.

The scientific topics mostly covered graphene physics and spun from theory to experiments with an appropriate balance. More presentations in graphene chemistry and bio-applications would have further enhanced the interdisciplinarity. Particularly interesting were exchanges between theorists and experimentalists on topics of common interests such as the graphene band structure and band gap properties. The sessions were well attended and most participants stayed until the very end of the conference. Informal exchanges took place during the coffee breaks and discussion break in the morning.

### Informal Networking and Exchange; Atmosphere

Was the schedule and the atmosphere conducive to an easy exchange of information? Was there time and space for an informal discussion? Were younger researchers integrated?

The format of the conference is very appropriate and offers ample time for discussion. The initial schedule of the conference was modified to allow the break to be between 10h30 – 14h30 which was probably not the best solution since the afternoon sessions were then quite long.

Young researchers were well integrated, they made questions and participated in discussions. The fact that this conference offered the possibility for young researchers to network with colleagues and experienced researchers within and outside Europe is deemed one of the main assets of the event.

### Balance of Participants

Was there an appropriate balance between young and senior participants? Was a balance of national groups and researchers from different (sub)fields achieved?

The balance between young and senior participants was very appropriate. The main focus of the conference was on fundamental physical properties and electronic transport of graphene which is *per se* a field of great interest. Some

subfields of graphene research were less represented : there were few participants working in the field of graphene chemistry and graphene functionalisation or interactions with biological molecules were not addressed in the talks. Mechanical properties and composite materials with graphene were also less represented in the programme.

## **Outlook and Future Developments**

Will new collaborations emerge from this conference? (How) could the conference outcomes be utilized further? Are there suitable (ESF) programmes or instruments to further the work of the conference?

Due to the rapid growth of the European graphene research community, the launching of the ESF EuroGRAPHENE Eurocores programme in 2010 and the fact that the venue in Obergurgl is obviously too small for future events, it has been decided to organize the next Graphene week in Delft (The Netherlands) in June 2012. The conference will be supported by EuroGRAPHENE and will aim at about 300 participants. The chair will be prof. Lieven Vandersypen from Delft University.

## **Follow-up**

What immediate and long term follow-up would benefit collaborations and dialogues that may have begun at the conference?

Currently the interest in graphene is very high and this conference can provide the opportunity for researchers to start new collaborations and prepare joint projects. The Graphene FET-Flagship Pilot action was presented by Vladimir Falko at the opening as a possible large-scale future funding initiative for Graphene in Europe.

For future activities, more participation and involvement of researchers from industries (In particular European) interested and working on graphene should be considered.

## **Organisation and Infrastructure**

Were venue, catering and accommodation appropriate for this conference? Were participants satisfied with the on-site administration and support?

Fully appropriate.

## **Summary & Overall Assessment**

Was the conference successful; were its aims achieved?

The conference was very successful and the networking and scientific aspects excellent. The aims were therefore fully achieved.

## About ESF Research Conferences

### The Scheme

This conference is part of the European Science Foundation's (ESF) Research Conferences Scheme. The Scheme aims to promote scientific excellence and frontier level research throughout Europe and the rest of the world. Conferences aim to provide leading scientists and other participants, including young researchers, with a platform to present their work, to discuss the most recent developments in their fields of research and to network.

### Conference Format

The core activities should be based on lectures by invited speakers, who are leaders in their respective fields, followed by extensive discussion periods. An informal exchange of ideas, both inside and outside the lecture room, should be encouraged, and the number of sessions in the daily timetable should be limited in order to allow sufficient time for interaction between the participants. Time should be reserved for a 'Forward Look Plenary Discussion' about future developments in the field.

Participants can take all their meals together to encourage further contact and networking, which can be particularly beneficial to younger researchers who may be less outspoken in the formal lecture room setting. In order to gain optimum benefit from the conference, both the speakers and the participants are asked to stay for the whole duration.

### Division of Tasks

The Conference Chair is responsible for ensuring the quality of the scientific programme through the selection and invitation of speakers, and through the selection of participants.

The ESF Conferences Unit is responsible for managing all the logistical aspects of the conference organisation, including the provision of an on-site secretariat.

Further information: [www.esf.org/conferences](http://www.esf.org/conferences)