

ESF RESEARCH CONFERENCES

Rapporteur Report

Partnership:	ESF FWF LFIU
Conference Title:	Putting our Solar System in Context: Origin, Dynamical and Physical Evolution of Multiple Planet Systems
Dates:	25-30 April 2010
Chair:	Prof. Mario Lattanzi
Rapporteur:	Dr. David W. Latham

General Comments

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

The discovery and characterization of planets orbiting other stars is one of the newest and fastest growing fields in modern astronomy. Hundreds of exoplanets have been discovered over the past 15 years, accurate masses and radii (and therefore bulk densities) have been determined for dozens, and in several cases the planetary atmospheres have been studied spectroscopically, yielding temperatures, chemical compositions, and even information about the weather. In contrast, detailed characterization of the planets in our own solar system has a long history, albeit with many recent advances. The aim of this conference was to bring the two communities together so that they could learn from each other, and good progress was made towards this goal. On the one hand, the planets in our solar system are understood in considerable detail because they are nearby and have been studied up close, and this understanding can help guide people who model exoplanets. On the other hand, exoplanets show a stunning diversity of architectures, and this diversity provides new insights to people who model the formation and evolution of the solar system.

I participated as an invited speaker. I did not play a role in the scientific organization of the conference.

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.

An impressive group of experts was enlisted to present invited talks on a well-chosen and balanced selection of topics. The invited talks were uniformly of high quality. The invited talks were supplemented by a suite of appropriate contributed talks and posters.

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 first two days were very full, and the sessions continued after dinner. The third and fourth days were less demanding. All participants took all their meals together, and this encouraged casual interactions. Coffee breaks in the mornings and afternoons also provided opportunities for informal interactions, although the coffee break area was cramped. The bar was a popular venue for decompression after the day's schedule was accomplished.

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 field of exoplanets has seen a remarkable influx of young people drawn to the field by the many opportunities for new ideas and research projects. Thus the median age of the participants was unusually young. The organizers

succeeded in their efforts to get good participation by experts from both sides of the Atlantic, and also in making opportunities for young newcomers from Europe to participate.

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?

There were good interactions between top scientists from NASA and ESA missions, with informal discussions of plans for possible joint missions towards the end of the decade.

The possibility of publishing some of the key conference results in a special issue of *Advances in Space Research* is under consideration.

Follow-up

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

For the near term it should be adequate to let individuals pursue the opportunities for collaborations and dialogues that the conference enabled. On a longer term, it might be appropriate to have a similar follow-up conference in five years or so.

Organisation and Infrastructure

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

The site in the Tyrol is spectacular. The food service was reliable, but I overheard some grumbling about the quality. Personally, I was quite satisfied. The facility was clean. The internet service was basically good, but the wireless went down in the main rooms on two days, and some of the bedrooms (including mine) had no internet access. I appreciated access to the on-site gym. The administration of the facility seemed efficient, and the local ESF manager did a professional job.

Summary & Overall Assessment

Was the conference successful; were its aims achieved?

I judge that the conference was successful, but the individual feedback sheets filled out by the participants should provide a more accurate accounting of the views of others. Only time will tell whether the solar-system and exoplanet communities have been drawn closer together.

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