

SCHOOL REPORT

School: 17th JCNS Laboratory Course Neutron Scattering

Dates: September 2–13, 2013

Venue: Forschungszentrum Jülich / Heinz Maier-Leibnitz Zentrum, Garching

Organizer's Names: T. Brückel, D. Richter, R. Zorn

Organizer's Affiliation: Forschungszentrum Jülich, RWTH Aachen, University Münster

Total budget: € 46 000 (estimated)

Maximum NMI3-II support: € 14 000

Scope

The course consisted as in the last years of a lecture week and a week of experimental work. The experimental part was held at the neutron source of Heinz Maier-Leibnitz Zentrum in Garching close to Munich. The lectures covered all relevant topics of neutron scattering and were held in English. They were accompanied by exercises which were solved by the students in tutored groups in the afternoon. The experimental part was done on eleven instruments which were made available to the laboratory course for five days. The students were distributed into groups of five. Each group performed a selection of five experiments. The groups itself were composed such that all important topics of neutron scattering were covered in each group. Students were allowed to choose their group based on their preferences (interest in specific instruments, socialising...). The experiments were partly special set-ups to improve the understanding of the instruments but also experiments exemplifying “real-life” applications.

Students

The number of participating students was 57 this year. Of the 147 applicants 61% had to be rejected due to the limitation of experimental groups to a total of 55. Among the selected students 20 were from universities abroad. 13 students came from non-German EU and associated countries. Students came from 11 countries of which 7 are in the EU or associated states (including Germany). The participation of female students was 42%, similar to the years before. The most represented major subject of the students was Physics (31) followed by Chemistry (24) and Biosciences (2).

Organisation

Because neither Forschungszentrum Jülich nor FRM II own a guesthouse of sufficient capacity and lodging is limited in Jülich and Garching the students were accommodated externally and transferred by bus or public transportation. The students could stay free of charge (including meals at the accomodations and lunch in the canteens of FZJ and FRM II). For foreign students also the travel expenses were paid. The travel between the two sites Jülich and Garching was accomplished by a company bus of FZJ.

During the first week lectures were held in combination with tutored exercises and the syllabus was condensed. This new concept was introduced two years ago and proved successful again. In the second week the performance of the reactor was flawless, so that experiments could be carried out all five days.

Results

Feedback from the students was collected in two closing sessions and by feedback forms for both the lecture and experiment part (individually for lectures/experiments). The evaluation was conveyed to the responsible lecturers/tutors and also discussed in the in the organisers meeting for the preparation of the next school. The ratings were on average significantly better than the year before. Because lectures and experiments were not changed we attribute this to better routine of the lecturers and tutors and/or a larger representation of Physics students. For the latter speaks that there were nearly no complaints about the level of the lectures being too high as in the years before. In general, the lectures were considered well-prepared as well as the manuscript collection which was given to the students. The exercises, introduced two years ago, were generally appreciated.

Permission to contact the students is herewith granted. A list of e-mail and postal addresses is attached for that purpose.

Organizer's E-mail: r.zorn@fz-juelich.de