

Scientific report about the workshop
« Quantum engineering with photons, atoms and molecules »
les Houches, February 14-17 / 2005

The programme of the workshop was very well balanced between the different domains: cold atoms, quantum optics and metrology (see the detailed schedule of the 4 days of work). The audience was quite young and many of the speakers were young too, which gave to the meeting a very lively atmosphere. The large majority of the tutorial talks had been very carefully prepared in order to be fully understandable by the entire public, not necessarily specialized in all the domains of the workshop. One long lecture was particularly successful and well attended, namely Alain Aspect's tutorial on "cold atomic samples, from where do we come, where do we go?". Also very noticeable was the brilliant animated presentation of "quantum imaging" by Hans Bachor, as well as the very pedagogical one of Wolfgang Ertmer on cold atoms in space.

The composition of the audience was also well mixed between French, Germans and Australians. Scientific discussions went on all the time, including lunch, dinner and after dinner. The poster rooms were constantly crowded until late in the evening. One noticed that several future cooperations were initiated between young partners (for instance about the continuous atom laser between Guery Odelin and Joe Hope). Altogether the workshop was very informative and the young participants expressed that they had learned a lot at the end. It should be continued by a reciprocal workshop taking place in Australia and organised by Hans Bachor in 2006.

Michèle Leduc and Nicolas Treps
French organisers of the workshop