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ESF Short Visit Grant – Final Report

Reference number: 1570

To whom it may concern,

The short term visit at Warsaw and Torun from November 29th to December 2nd was a full success in terms of scientific exchange, promotion of joint projects and establishment of new connections:

Purpose of the visit:
Promotion of theoretical-experimental cooperation, establishment of new experimental connections and scientific exchange.

Description of the work carried out during the visit:
I have given two talks on the physics of quantum gas mixtures and ultracold molecules, one at Warsaw University and one at the University of Torun. Furthermore we had intense discussions at Warsaw concerning possible cooperations in the field of spinor Bose-Einstein condensates at finite temperature and Fermi-Bose mixtures. In particular we have been able to push a joint publication on dipolar effects in Rb-Spinor Bose-Einstein condensates. In Torun we have been able to clarify experimental questions concerning technical aspects in the production and analysis of Bose-Einstein condensates and have established a strong relation between the Hamburg and Torun teams.

Description of the results obtained:
- new points added to a joint publication
- strengthening of cooperation between the groups at Warsaw and Torun with the Hamburg group
- definition of possible joint projects

Future collaboration with host institution:
- Simulations and experiments concerning finite temperature Spinor condensates, possibly carried out by a joint PhD student.
- Technical exchange collabotation with the Torun team.

Projected publications/articles resulting or to result from your grant:
- Einstein de Haas effect in 87Rb spinor condensates, to be resubmitted

Regards,

Kai Bongs.