

International Conference on Quantum Gases of Polar Molecules and Magnetic Atoms

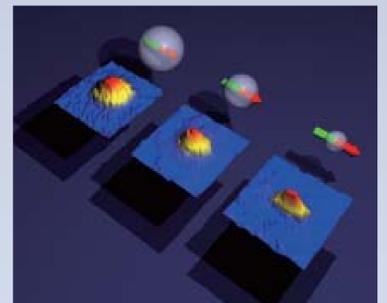


Organized by

Institute for Advanced Study, Tsinghua University, Beijing, China
and Bose-Einstein Condensation Center, CNR and University of Trento, Italy

Organizers

Tin-Lun (Jason) Ho (Ohio-State)
Sandro Stringari (Trento)
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Aug 28-30, 2012, Tsinghua University, Beijing, China

Recently ground state polar molecules have been successfully realized using stimulated Raman adiabatic passage (STIRAP) technique, which has stimulated new experimental activities along this direction in many laboratories. It is very promising that a stable and quantum degenerate gas of polar molecules can be realized in the near future. Such polar molecules have a large permanent electric dipole moment and hence strong long-range dipolar interaction effects in the presence of an electric field, giving rise to new few- and many-body phenomena that are absent in the traditional atomic systems explored so far.

Recently there have been also increasing efforts to study degenerate gases of atoms with large magnetic moment and hence large magnetic dipole interaction in the presence of a magnetic field, such as Chromium, Dysprosium and Erbium.

This conference will bring together experimental and theoretical researchers working on quantum gases of polar molecules and magnetic atoms, and discuss new opportunities and challenges. The conference includes long and short invited talks as well as several discussion sessions.

The conference is the second one of a series of conferences on quantum gases held by the Institute for Advanced Study of Tsinghua University every two year. The first one was held in 2010 on "Quantum Gases in Synthetic Gauge Fields".

key invited speakers

John Bohn (JILA)
Eugene Demler (Harvard)
Deborah Jin (JILA)
Benjamin Lev (Stanford)
Hanns-Christoph Nagerl (Innsbruck)
Tilman Pfau (Stuttgart)
Luis Santos (Hannover)
Gora Shlyapnikov (Orsay)
Martin Zwierlein (MIT)

The relevant information on the conference will be updated on the website <http://www.castu.tsinghua.edu.cn/>. Travel and hotel information are also available on the same website. For registration, please send e-mail to cold.atoms.IASTU@gmail.com with your name, institution, contact information and a brief description of your research interests. After registration you will receive further information about the conference. For more information please contact Hui Zhai at huizhai.physics@gmail.com.

No registration fee is required for the conference. Due to limited resources, we only arrange and cover local lodging for long and short talk speakers and a few key participants.

