

COST Action no.MP1001

2010 | 2014

Ion Traps for Tomorrow's Applications

Objectives

- Integrate experimental and theoretical approaches in order to gain insight into the fundamental interaction processes of trapped ions for various applications in physics, chemistry and information technology
- Join forces to tackle common questions more efficiently
- Development of robust and easy to implement ion trapping technologies for a wide variety of applications.
- Address fundamental problems in ion trapping applicable to the wider community
- Promote ion trapping for various applications in neighboring domains (nanotechnology, aeronomy, biology, ...)

Working Groups

- WG 1: Technology**
The Ion Trapper's Wiki, IonTech workshop, new "series", held already twice, > 140p.
- WG 2: Various Scales**
QIon, yearly workshop, 40 p.
- WG 3: Interaction of ions with electromagnetic radiation**
Meetings: CAMEL (60 p), Qion (40 p), Quantum Simulation (40 p), Implementing Quantum Science
- WG 4: Cold Molecules**
Extremely successful workshop; interest of the wider Cold Molecules community; 1st tentative for a "molecule" COST Action



Main Achievements

- Dynamic scientific meeting program with neighboring communities/ off the beaten track.
- Newsletter very successful
- Publication of special issue on Ion Trapping, Imperial College Press (end of 2013); AIP proceedings of Non-Neutral Plasma workshop (spring 2013); Tutorials in Enrico Fermi School (to be published autumn 2014)
- Very good (and growing) international visibility, many international collaborations
- Large interest from neighboring domains for all our activities and events



Gender Balance and Early Stage Researcher

- Objectives: facilitate the attendance of women in events, role models, mentoring
- Many tutorials, a 10-day school every 18 months, lecture notes always published
- In 2015, a real book with exercises to be published after school
- Status: Family-friendly STSM proposed, encourage girl students (article published), follow-up/accompany female PhD students attending the events



Dissemination

- Monthly Newsletter to an audience of 600+, publication database
- 2 articles in europhysics news
- Outreach talks
- Project for MOOC, and/or wide public videos
- The Ion Trapper's Wiki (particularly dedicated to ESR)
- COST Science Night

www.cost.eu/mpns

Materials,
Physics &
Nanosciences
(MPNS)



Participating countries: 16

AT, BE, BG, CH, DE, DK, ES, FI, FR, IL, IT, NL, PL, PT, RO, UK

Internat. Collaboration:

USA, JP, PK, SA, AUS

Contact details

Chair of the Action

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Domain Committee Rapporteur

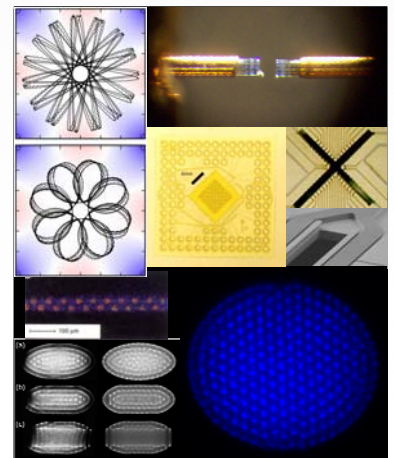
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