

First Circular

International Workshop "*Probing Fundamental Symmetries and Interactions with UCN*"

We are pleased to announce the international workshop “Probing Fundamental Symmetries with UCN”:

Location and date: Mainz, Germany, April 11th-15th, 2016

Venue: Waldthausen castle, Am Wald 1, 55257 Budenheim near Mainz



Webpage: <https://indico.mitp.uni-mainz.de/conferenceDisplay.py?confId=59>

Contact: ucnworkshop@uni-mainz.de

Please, circulate this information among your co-workers and interested colleagues.

Scope of the Workshop

The aim of this workshop is to bring together leading international experts from both experiment and theory in the field of UCN physics to discuss present and future experiments with UCN as well as progress in UCN sources and instrumentation.

The list of topics of our workshop comprises the full range of fundamental physics searches with UCN and also related fields of fundamental physics with cold neutrons. The workshop will include both invited and contributed talks.

International Advisory Committee

H. Abele, D. Dubbers, B. Filippone, K. Kirch, St. Paul, Y. Masuda, A. Saunders, A. Serebrov H. Shimizu, M. Snow, A. Young

List of topics

- V_{ud} , unitarity of the CKM-matrix and BBN (n-lifetime)
- Decay correlations (neutron β -decay)
- CP/T violation, baryogenesis (n-EDM)
- Baryon number violation (n-nbar oscillations)
- $1/r^2$ gravitational law, weak equivalence principle, extra dimensions (n-gravitation)
- Neutron electro-neutrality (n-charge)
- Mirror matter, spin-dependent forces, axion (mirror-neutrons, DM-search)
- Comparison of low energy and high energy results (EFT, QCD calc.)
- Exotic couplings, symmetries, CPT and Lorentz-invariance
- UCN sources
- Instrumentation/Simulation
- UCN applications (surface phenomena, etc.)

Invited Speakers

H. Abele (TU Vienna, Austria), L. Broussard (LANL, USA),
Z. Berezhiani (University of L'Aquila, Italy), D. Dubbers (Heidelberg University, Germany), M. Gonzales-Alonso (IPNL, France), K. Kirch (ETH Zürich and PSI, Switzerland), C.-Y. Liu (Indiana University, USA), B. Märkisch (TU Munich, Germany), M. Ramsey-Musolf (University of Massachusetts Amherst, USA), L. Salvati (INFN and University of Rome, Italy), A. Serebrov (PNPI, Russia), A. Young (NCSU, USA)

Abstract Submission

*Abstract submission deadline for the contributions along with all other relevant information (registration, accommodation, travel, ...) will be announced in the second circular (**December 2015**) and through <https://indico.mitp.uni-mainz.de/conferenceDisplay.py?confId=59>*

Local Organizing Committee

M. Beck, W. Heil, S. Karpuk, F. Ohl (secretary), T. Reich, P. Sach-Muth (secretary), Y. Sobolev, E. Stuck-Kehrt (secretary), N. Trautmann

Looking forward to welcome you in Mainz