

Neutron Electric Dipole Moment: from theory to experiment

Trento, 1 August – 5 August 2022

Neutron Electric Dipole Moment (nEDM) could point towards Beyond The Standard Model Physics. This makes it an interesting and timely quantity to investigate. Several experiments measuring the nEDM are now in the process of upgrading their apparatus in order to reach higher accuracy than before. At the same time recent advances in Lattice Gauge Theories, as well as the increase in computational power can make the extraction of the nEDM, induced by CP-breaking operators in the QCD lagrangian, possible for physical pion masses. Hence we invite scientists working on nEDM with research areas covering experiment, phenomenology and lattice gauge theories to present their work in order to build a common ground.

Organizers

Andreas **ATHENODOROU** (The Cyprus Institute, Nicosia/CY)
Maria Paola **LOMBARDO** (INFN – LNF, Firenze/I)
Andrea **SHINDLER** (Michigan State University, East Lansing/US)

Key Speakers

Constantia **ALEXANDROU** (Cyprus University and The Cyprus Institute); Claudio **BONANNO** (INFN Firenze); Aldo **COTRONE** (Florence University); Laura **COVI** (ITP - Georg-August University Göttingen); Massimo **D'ELIA** (Pisa University); Björn **GARBRECHT** (Technische Universität München); Takeyasu **ITO** (Los Alamos National Laboratory); Jangho **KIM** (Forschungszentrum Juelich); Kent **LEUNG** (Montclair State University); Keh-Fei **LIU** (Kentucky University), Ulf-G. **MEIBNER** (Bonn University); Emanuele **MEREGHETTI** (Los Alamos National Laboratory); Florian **PIEGSA** (Bern University); Michael **RAMSEY-MUSOLF** (U. Massachusetts Amherst & T.D. Lee Institute/Shanghai Jiao Tong University); Gerrit **SCHIERHOLZ** (DESY); Philipp **SCHMIDT-WELLENBURG** (PSI - Paul Scherrer Institute); Carlos **TAMARIT** (TUM); Michael **TEPER** (Oxford University); Andre **WALKER-LOUD** (Lawrence Berkeley National Laboratory); Boram **YOON** (Los Alamos National Laboratory)

Director of the ECT*: Professor Gert Aarts

The ECT* is part of the Fondazione Bruno Kessler. The Centre is funded by the Autonomous Province of Trento, funding agencies of EU Member and Associated states, and by INFN-TIFPA and has the support of the Department of Physics of the University of Trento.

For the organization please contact: ECT* Secretariat - Villa Tambosi - Strada delle Tabarelle 286 | 38123 Villazzano (Trento) – Italy | Tel.:(+39-0461) 314722, E-mail: staff@ectstar.eu or visit <http://www.ectstar.eu>