

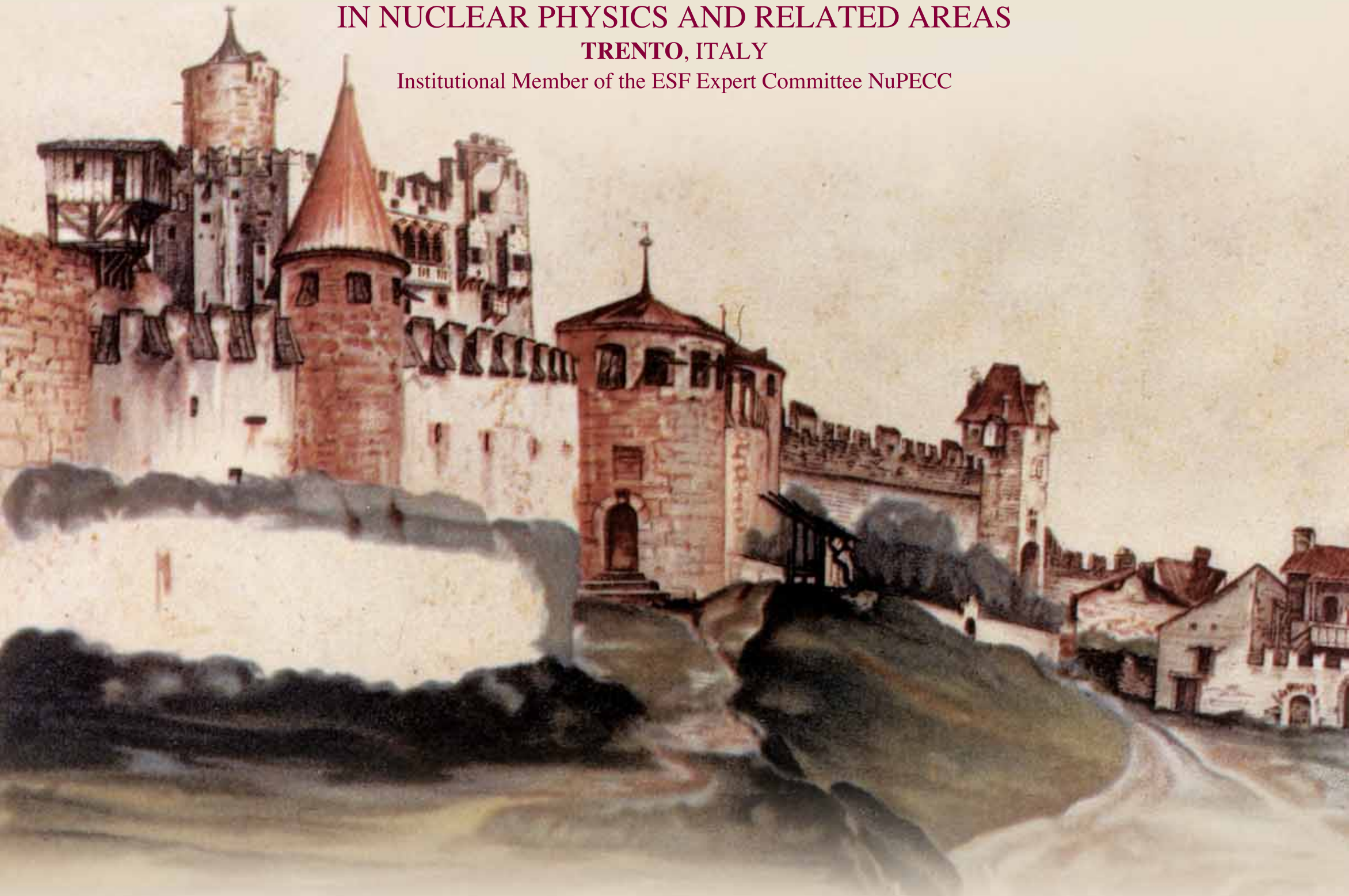


ECT*



EUROPEAN CENTRE FOR THEORETICAL STUDIES IN NUCLEAR PHYSICS AND RELATED AREAS TRENTO, ITALY

Institutional Member of the ESF Expert Committee NuPECC



Castello di Trento ("Trin"). watercolour, 19.8 x 27.7, painted by A. Dürer on his way back from Venice (1495)

British Museum, London.

Towards a resolution of the double beta decay problem Trento, September 3 – 7, 2012

Main Topics

The general goal of the workshop is to review and debate the recent theoretical and experimental progress of the DBD searches and its connections with other neutrino investigations like neutrino oscillation data and possible LHC results.

Particularly, we want:

- to review the recent theoretical developments for the computation of the NMEs, have a critical comparison between the different methods with the goal to understand the discrepancies and reduce the errors in the obtained results;
- to make an analysis of the mechanisms of occurrence of the neutrinoless double beta decay with the goal to identify methods/ways to determine the leading one;
- to review the present status and the future of DBD experiments, with the goal to understand the perspectives and the experimental limitations of the neutrinoless double beta decay searches;
- to review the most recent neutrino oscillation data and future perspectives of accurate measurements of the neutrino mixing parameters.

Key speakers include

R. Bernabei (*Roma*)
 O. Civitarese (*La Plata*)
 H. Ejiri (*Osaka*)
 S.R. Elliot (*LANL*)
 J. Engel (*North Carolina*)
 D. Frekers (*Muenster*)
 S. Freeman (*Manchester*)
 M. Horoi (*CMU*)
 F. Iachello (*Yale*)
 B. Kay (*York*)
 V.K.B. Kota (*Ahmedabad*)
 V. Lozza (*TU Dresden*)

B. Majorovits (*MPP Munich*)
 J. Menéndez (*Darmstadt*)
 S. Petcov (*SISSA-Trieste*)
 F. Piquemal (*Bordeaux/LSM*)
 A. Poves (*Madrid*)
 W. Rodejohann (*MPIK Heidelberg*)
 Th. Rodriguez (*Darmstadt*)
 J. Schiffer (*ANL*)
 F. Simkovic (*Bratislava/Dubna*)
 S. Stoica (*Bucharest*)
 J. Suhonen (*Jyväskylä*)
 K. Zuber (*TU Dresden*)

Organizers

Sabin Stoica (*Horia Hulubei National Institute of Physics and Nuclear Engineering*)
 Mihai Horoi (*Central Michigan University*)
 Jouni Suhonen (*University of Jyväskylä*)
 Kai Zuber (*TU Dresden*)

Director of the ECT*: Professor Achim Richter (ECT*)

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For local organization please contact: Ines Campo - ECT* Secretariat - Villa Tambosi - Strada delle Tabarelle 286 - 38123 Villazzano-Trento - Italy
Tel.:(+39-0461) 314-721 Fax: (+39-0461) 935007, E-mail: ect@ectstar.eu or visit <http://www.ectstar.eu>

