

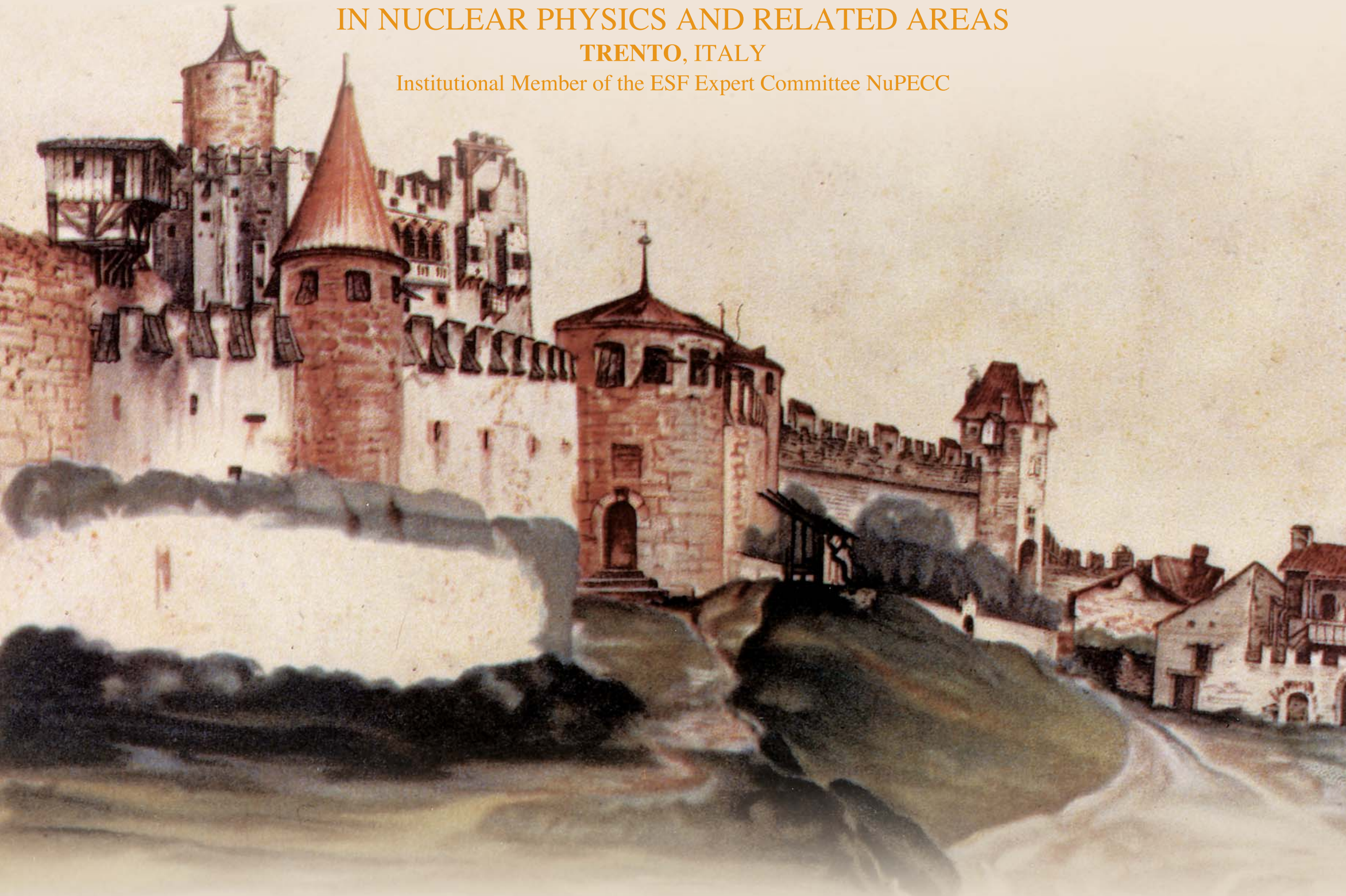


ECT*



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

Institutional Member of the ESF Expert Committee NuPECC



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

British Museum, London.

The limits of existence of light nuclei Trento, October 25-30, 2010

Main Topics

Light exotic nuclei offer a unique opportunity to test our growing understanding of the QCD basis of nuclear physics and of the many-body methods needed to pursue this synthesis. These nuclei have small binding energies compared to the typical QCD scale ~ 1 GeV, and are thus in a regime where low-energy effective theories of QCD can be, and have been, constructed. At the same time, these systems are amenable to exact calculations where one can study the emergence of effective interactions among coherent clusters of nucleons.

The workshop is focused on the key steps in strengthening the connections QCD $\langle ??? \rangle$ effective interactions $\langle ??? \rangle$ light nuclei from ab-initio methods.

The first link can be made through effective field theory, while the second includes no-core and continuum shell models, and advanced continuum-coupled channels methods.

Key speakers include:

S. Bacca (*TRIUMF*), S. Bogner (*Michigan State University*), L. Chulkov (*Moscow University*), C. Forssen (*Chalmers University of Technology*), M. Freer (*University of Birmingham*), G. Hagen (*Oak Ridge National Lab*), R. Higa (*KVI, Groningen*), H.-W. Hammer (*Bonn University*) A. Jensen (*Aarhus*) W. Leidemann (*Trento University*), T. Nakamura (*Tokyo Tech*), T. Neff (*GSI, Darmstadt*), T. Nilsson (*Chalmers University of Technology*), G. Orlandini (*Trento University*), N. Orr (*LPC, Caen*) A. Richter (*ECT*, Trento*), G. Rogachev (*Florida State University*), R. Roth (*Technical University, Darmstadt*), A. Schwenk (*TRIUMF*), H. Simon (*GSI, Darmstadt*), I. Stetcu (*University of Washington*), I. Tanihata (*RCNP, Osaka*), M. Thoennessen (*Michigan State University*)

Organizers

C.A. Bertulani (Texas A&M University-Commerce), carlos_bertulani@tamu-commerce.edu
T. Aumann (GSI, Darmstadt), T.Aumann@gsi.de
A. Bonaccorso (INFN, sez. di Pisa), bonac@df.unipi.it
U. van Kolck (University of Arizona), vankolck@physics.arizona.edu

For more info, see <http://www.tamu-commerce.edu/physics/Trento2010.html>

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



Study of Strongly Interacting Matter

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For local organization please contact: Cristina Costa or Ines Campo - ECT* Secretariat - Villa Tambosi - Strada delle Tabarelle 286 - 38123 Villazzano Trento - Italy
Tel.: (+39-0461) 314-730 or -721 Fax: (+39-0461) 935007, E-mail: ect@ect.it or visit <http://www.ect.it>