



**ECT\***  
EUROPEAN CENTRE  
FOR THEORETICAL STUDIES  
IN NUCLEAR PHYSICS AND RELATED AREAS

HYBRID WORKSHOP

# EXOTICO: EXOTIC atoms meet nuclear COLLISIONS for a new frontier precision era in low-energy strangeness nuclear physics

Trento, 17 – 21 October 2022

The EXOTICO workshop will address the most important open issues in the field of the strong interactions of hadrons with strangeness content. This field has recently received new experimental input from facilities ranging from low-energy to multi-TeV environments and heavy ion collisions. Such data is enabling updated calculations and precise tests of the theoretical approaches describing the hadronic interactions. The present status and the open topical questions will be discussed for the first time in a unique framework. Among the main issues stand out: the properties of kaonic nuclear matter, the nature of the Lambda(1405), the description of the hadronic interactions starting from first principles, and the possible presence of strangeness in the core of the Neutron Stars. The new avenues that are being opened by the high precision data together with new theoretical approaches allow us to enter a new era in the understanding of the strong interaction.

## Organizers

Otón **Vázquez Doce** (LNF – INFN), Catalina **Curceanu** (LNF-INFN), Ramos **Angels** (Universitat de Barcelona), Johann **Zmeskal** (SMI – Vienna), Jiri **Mares** (Nuclear Physics Institute CAS, Rez)

## Key Speakers

Alessandro **Scordo** (INFN-LNF), Kristian **Piscicchia** (Centro Fermi, Roma), Laura **Fabbietti** (TU – Munich), Tetsuo **Hyodo** (Tokyo Metropolitan University), Akira **Ohnishi** (Kyoto University), Abraham **Gal** (Racah Institute of Physics, The Hebrew University)

## Director of the ECT\*: Professor Gert Aarts

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