

EUROPEAN CENTRE FOR THEORETICAL STUDIES IN NUCLEAR PHYSICS AND RELATED AREAS

TRENTO, ITALY

Institutional Member of the European Expert Committee NUPECC

The Castle at Trento, painted by A. Dürer on his way back from Venice (1495, watercolor 19.8 x 27.7). British Museum, London

JPAC Collaboration Meeting

September 9-13, 2019

Abstract

Recently there have been dramatic advancements in accelerator technologies, detection techniques and on the theoretical side, algorithms for first principle QCD analyses. These have led to several candidates for possible "exotic" hadrons, i.e., quark-gluon hybrids or quark-hadron molecular states. It thus appears that interpretation of the entire hadron spectrum in terms of the naivest constituent quark model is no longer possible. If confirmed, such exotic hadrons could drastically alter our understanding of strong QCD and shed new light on the confinement of quarks. Given the wide interest in hadron spectroscopy, the Joint Physics Analysis Center (JPAC) has been dedicated to the development of theoretical and phenomenological analysis methods for analysis of hadron reactions.

Amplitude models based on principles of S-matrix theory are developed for various reactions of interest to the hadron physics community and QCD practitioners. JPAC members work in close collaboration with experimentalists on implementing theoretical innovations into the existing data analysis streams.

Organizers and attendees

Alessandro **Pilloni** (*ECT**, *Italy - organizer*), Andrea Bianconi (Università di Brescia, Italy), Daniele Binosi (ECT*, Italy) Letterio Biondo (Università di Messina, Italy), Andrea Celentano (INFN Genva, Italy), Giovanni Costantini (Università di Brescia, Italy) Jinlin Fu (Università di Milano, Italy), Robert Kaminski (Institute Of Nuclear Physics PAS, Poland) Giuseppe Mandaglio, (Università di Messina, Italy), Daniele Marangotto (Università di Milano, Italy) Luca Marsicano (INFN Genva, Italy), Vincent Mathieu (Università Complutense, Spain, Mikhail Mikhasenko (CERN Nicola Neri (Università di Milano, Italy), Jannes Nys (University of Ghent, Belgium) Alessandro Pilloni (ECT*, Italy), Arkaitz Rodas (College of William and Mary, USA) Elisabetta Spadaro Norella (Università di Milano, Italy), Luca Venturelli (Università di Brescia, Italy)

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Director of the ECT*: Professor Jochen Wambach

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