High-energy physics at ultra-cold temperatures
Trento, June 10-14, 2019

Main topics
The most fundamental laws of physics are routinely explored by experiments at large facilities which probe the highest energies, smallest distances and shortest times. However, models and underlying theories designed to explain the observations may also emerge as effective descriptions of many-body systems at lower energies, e.g. in condensed-matter physics. The recent advances in the field of atomic, molecular, and optical physics have allowed experimentalists to control these many-body systems to such an extent that it is nowadays possible to shape the emergence of those effective descriptions, targeting a particular model of high-energy physics. In this way, interesting and difficult problems of high-energy physics may soon be explored at ultra-cold temperatures, with the advantage that parameters can be changed by turning the experimental knobs.

In such endeavour, the workshop “High-energy physics at ultra-cold temperatures” aims to bring experts from different disciplines to discuss recent developments in a multidisciplinary environment.

Keynote speakers
Dr. Monika Aidelsburger (Ludwig-Maximilian Munich, Germany), Dr. Mari Carmen Bañuls (MPQ Munich, Germany), Prof. Juergen Berges (Heidelberg, Germany)*, Dr. Alessio Celi (Innsbruck IQOQI, Austria), Prof. Juan Ignacio Cirac (MPQ Munich, Germany), Prof. Joaquin Drut (North Carolina University), Dr. Philipp Hauke (Heidelberg University, Germany), Prof. Fred Jendrzejewski (Heidelberg University, Germany), Dr. Leonardo Mazza (Ecole Normale Superieure Paris, France), Prof. Yannick Meurice (Iowa University, USA), Dr. Giandomenico Palumbo (Universite Libre Brussels, Belgium), Dr. Joao Pinto Barros (Bern University, Switzerland), Dr. Lukas Rammelmueller (Darmstadt University, Germany), Prof. Enrique Rico (Universidad de Pais Vasco, Spain), Dr. David Schaich (Liverpool University, UK), Prof. Sandro Stringari (BEC centre Trento, Italy), Dr. Erez Zohar (MPQ Munich, Germany), Dr. Christof Weitenberg (Hamburg University, Germany)
*to be confirmed

Organizers
Alejandro Bermudez Carballo (Universidad Complutense de Madrid), albermud@ucm.es
Gert Aarts (Swansea University (UK))
Maciej Lewenstein (Institute of Photonic Sciences (ICFO))

Director of the ECT*: Professor Jochen Wambach (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) 314721 Fax: (+39-0461) 314750, E-mail: icenscampo@ectstar.eu or visit http://www.ectstar.eu