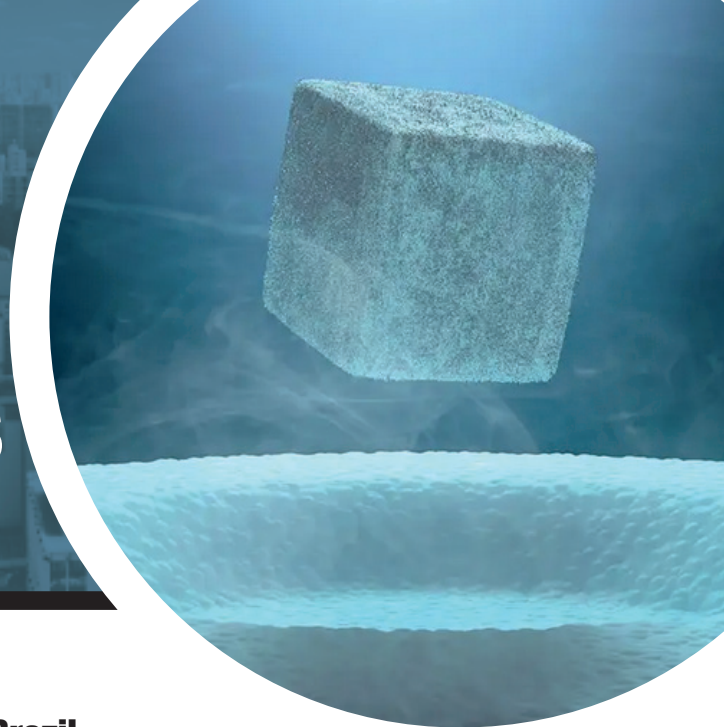




**ICTP
SAIFR**

International Centre
for Theoretical Physics
South American Institute
for Fundamental Research

WORKSHOP ON NEW HORIZONS IN QUANTUM CORRELATED MATERIALS



August 15-19, 2022

at Instituto de Física Teórica - UNESP, São Paulo, Brazil

CONFIRMED SPEAKERS

Alix McCollam (Radboud University, Netherlands)
Andrés Santander-Syro (Université Paris-Saclay, France)
Cynthia Contreras Medrano (CBPF, Brazil)
Daniel Cabra (Universidad Nacional de La Plata, Argentina)
Daniel Reyes (Instituto Militar de Engenharia, Brazil)
Eduardo Miranda (UNICAMP, Brazil)
Eric Andrade (USP-São Carlos, Brazil)
Eva Pavarini (Forschungszentrum Jülich GmbH, Germany)
Fernando Garcia (USP-São Paulo, Brazil)
Gustavo S. Lozano (Universidad de Buenos Aires, Argentina)
Helena Bragança (UnB, Brazil)
Karen Hallberg (Centro Atómico Bariloche, Argentina)
Leni Bascones (I. de Ciencias de Materiales de Madrid, Spain)
Luis Gregório Dias (USP-São Paulo, Brazil)
Marcelo Rozenberg (Université Paris-Saclay, France)
Mariana Malard (UnB, Brazil)
Milan Radovic (Paul Scherrer Institute, Switzerland)
Natanael de Carvalho Costa (UFRJ, Brazil)
Ricardo Lobo (É. Supérieure de Physique et de Chimie Industrielle, France)
Ricardo Urbano (UNICAMP, Brazil)
Rodrigo Pereira (International Institute of Physics-UFRN, Brazil)
Valentina Martelli (USP-São Paulo, Brazil)
Vanuildo Silva de Carvalho (U. Federal de Goiás, Brazil)
Vivian França (UNESP-Araraquara, Brazil)
Willian Natori (Institute Laue Langevin, France)

The experimental discovery of materials displaying exotic behavior, such as unconventional superconductivity, exotic quantum orders, and nontrivial topological phases has pushed the frontiers of fundamental research in condensed matter physics. Many of the key properties of these materials emerge from the interaction between particles and the related competing energy scales. This means that they cannot be simply described by considering single-particle approximations, but require the development of new tools and nontrivial analyses.

In this workshop, we will bring together junior researchers as well as prominent experimentalists and theoreticians to discuss low dimensionality effects, frustrations, spin-orbit coupling, charge fluctuations, superconductivity, and disorder in strongly correlated systems. We expect a rich exchange of ideas during the workshop and the possible establishment of new collaborations between the participants.

Participants are invited to present their works in the poster section, and depending on the schedule, a few contributed works will be considered for oral presentations.

There is no registration fee.

**Deadline for Abstract submission:
June 15, 2022**

**Registration deadline:
July 3, 2022**

**Online registration and more information:
<https://www.ictp-saifr.org/qcm2022/>**



unesp



IFT - UNESP
INSTITUTO DE FÍSICA TEÓRICA

ORGANIZERS

Marcello Civelli
(U. Paris-Saclay, France)
Maria Carolina Aguiar
(Federal U. of Minas Gerais, Brazil)
Thereza Paiva
(Federal U. of Rio de Janeiro, Brazil)
Walber Hugo de Brito
(Federal U. of Minas Gerais, Brazil)

ICTP-SAIFR STEERING COMMITTEE
Atish Dabholkar - ICTP director
Pasqual Barretti - UNESP rector
Luiz Eugênio Mello - FAPESP scientific director
Hugo Aguilaniu - President-Director of Serrapilheira I.
Luiz Davidovich - President of Brazilian Acad. of Science
Juan Maldacena - Representing South America

ICTP-SAIFR SCIENTIFIC COUNCIL
Michael Green (chair) - U. of Cambridge
Rosario Fazio - ICTP representative
Alexandre Reilly Rocha - IFT-UNESP director
William Bialek - Princeton U.
Eduardo Fradkin - U. Illinois
Gabriela Gonzalez - LIGO, Louisiana State U.
André de Gouvêa - Northwestern U.
Karen Hallberg - Balseiro Inst., Bariloche
Luis Lehner - Perimeter Inst., Waterloo
Gabriel Mindlin - Univ. de Buenos Aires

ICTP-SAIFR STAFF
Nathan Berkovits - Director
Rogerio Rosenfeld - Vice-Director
Pedro Vieira - Perimeter-SAIFR Coordinator
Jandira Oliveira - Executive Manager
Humberto Neto - Executive Secretary
Lilia Faria - Financial Manager
Malena Stariolo - Science Journalist
Tiago Codinhoto - Technical Assistant