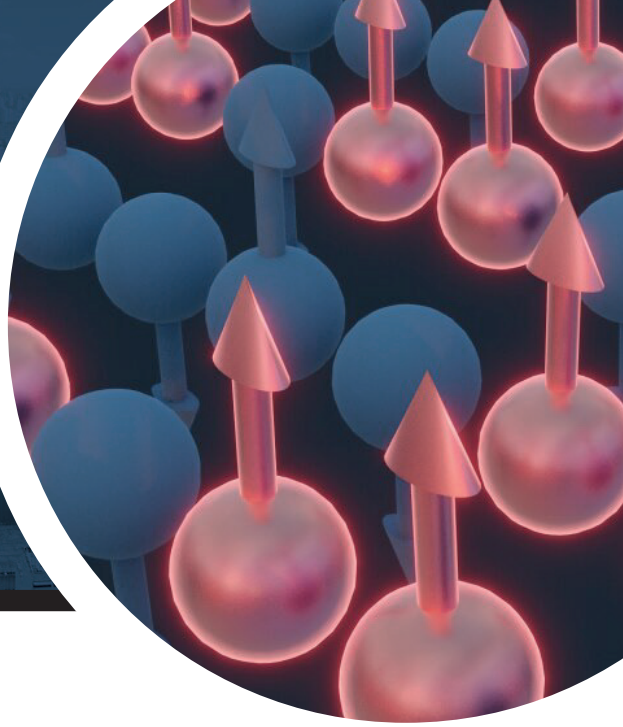
ICTP SAIFR International Centre for Theoretical Physics South American Institute for Fundamental Research

INSTITUTO PRINCIPIA

WORKSHOP ON FRONTIERS IN QUANTUM MATERIALS



September 1 – 5, 2025

at Principia Institute, São Paulo, Brazil

INVITED SPEAKERS

Maria Carolina de Oliveira Aguiar (UFMG, Brazil)
Flavia Alejandra Gómez Albarracín (IFLYSIB-CONICET, Argentina)
Rodrigo Arouca (Uppsala University, Sweden)
Turan Birol (University of Minnesota, USA)
Eduardo Bittar (CBPF, Brazil)
Luis Gregório Dias (IFUSP, Brazil)
Ian Fisher (Stanford, USA)
Vivian França (UNESP, Brazil)
Maria Gastiasoro (DIPC, Spain)
Elena Gati (Max Planck Institute, Germany)
Santiago Andrés Grigera (IFLYSIB-CONICET, Argentina)
José Hoyos (IFSC-USP, Brazil)
Na Hyun Jo (University of Michigan, USA)
Mariana Malard (UnB, Brazil)
Valentina Martelli (IFUSP, Brazil)
Robert McQueeney (Iowa State University & Ames Lab, USA)
Joe Meese (UIUC, USA)
Paula Mellado (Adolfo Ibáñez University, Chile)
Tobias Micklitz (CBPF, Brazil)
Willian Natori (Unicamp, Brazil)
Eduardo da Silva Neto (Yale, USA)
Michal Papaj (University of Houston, USA)
Gabriela Pasquini (UBA, Argentina)
Rodrigo Pereira (UFRN, Brazil)
Victor Quito (IFSC-USP, Brazil)
Srinivas Raghu (Stanford, USA)
Priscila Rosa (Los Alamos, USA)
Dario Rosa (ICTP-SAIFR, Brazil)
Carmen Rubio-Verdu (IFCO Barcelona, Spain)
Jörg Schmalian (KIT, Alemanha)
Inti Sodemann (University of Leipzig, Germany)
Ricardo Urbano (Unicamp)
Krissia Zawadzki (IFSC-USP, Brazil)

The search for novel emergent phases of matter has played a pivotal role in Condensed Matter Physics in the past few decades. In these phases, strong correlations, disorder and non-trivial topology of the electronic wave functions lead to quantum effects that leave fingerprints in a wide range of length and energy scales. Examples include high-Tc superconductors, topological insulators and semimetals that host robust surface states, and fractionalized excitations in quantum spin liquids. The capability of characterizing these exotic phases of matter at a fundamental level, predicting their occurrence in various materials, and taking advantage of on-demand manipulation of their properties for technological applications is attracting increasing interest in the broad and rich field of Quantum Materials.

The ICTP-SAIFR Workshop Frontiers in Quantum Materials brings together experts to discuss the most recent theoretical and experimental developments in the field of Quantum Materials. The exchange of ideas stimulated by the workshop will be a fertile ground for new collaborations between the participants.

We are happy to announce that poster prizes will be awarded during the event, recognizing the best contributions presented in the poster session. These prizes are sponsored by EPL (Europhysics Letters) and we encourage all participants to present posters that showcase their work.

There is no registration fee and limited funds are available for local expenses.

Registration deadline: July 8, 2025

Online application and more information:
ictp-saifr.org/wfqm2025

ORGANIZERS

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