

## **Monday, 27 October**

Approximate location (the entrance is through Rua do Cardeal Rei):

<https://maps.apple.com/?ll=38.573402,7.904735&q=Dropped%20Pin&t=m>

8:30 – 9:00 Registration

9:00 – 9:10 Welcome

9:10 – 9:45 Invited: Guido Pupillo

Title: Multi-qubit gates and Schrödinger cat states in an optical clock

9:45 – 10:05 Contributed:

Title:

10:05 – 10:25 Contributed:

Title:

10:25 – 10:50 Coffee break

10:50 – 11:25 Invited: Eugene Demler

Title: Variational approach to the dynamics of dissipative quantum impurity models

11:25 – 11:45 Contributed:

Title:

11:45 – 12:20 Invited: Daniel Podolsky

Title: Synthetic dimensions using ultrafast free electrons

12:20 Lunch break

15:00 – 16:00 Invited Colloquium: Aharon Kapitulnik

Title: Optical control of orbital magnetism in magic angle twisted bilayer graphene

16:00 – 16:20 Contributed:

Title:

16:20 – 16:45 Coffee break

16:45 – 17:20 Invited: Miguel Sánchez

Title: Many-body renormalization of twisted bilayer graphene

17:20 – 17:55 Invited: José González

Title: The route of shear to Ising superconductivity in bilayer graphene

17:55 – 18:15 Contributed:

Title:

**Tuesday, 28 October**

9:00 – 9:35 Invited: Francisco Guinea  
Title: Superconductivity in graphene stacks

9:35 – 9:55 Contributed:  
Title:

9:55 – 10:15 Contributed:  
Title:

10:15 – 10:40 Coffee break

10:40 – 11:15 Invited: Bogdan A. Bernevig  
Title: New platforms for Moiré systems

11:15 – 11:35 Contributed:  
Title:

11:35 – 11:55 Contributed:  
Title:

11:55 – 12:30 Invited: Mikito Koshino  
Title: Moiré band engineering in twisted trilayer 2D materials: From graphene to TMDs

12:30 Lunch break

15:00 – 16:00 Invited Colloquium: Eva Andrei  
Title: Moiré and more: quasiperiodicity, correlations, and topology

16:00 – 16:35 Invited: Shiwei Zhang  
Title: Learning and understanding phases in two-dimensional Coulomb systems with neural wave functions

16:35 – 17:00 Coffee break

17:00 – Poster presentations (2 minutes each) and poster session

(Poster frame size: 180cm height from the ground x 120cm width)

## **Wednesday, 29 October**

9:00 – 9:35 Invited: Bruno Bertini

Title: Quantum and classical dynamics with random permutation circuits

9:35 – 9:55 Contributed:

Title:

9:55 – 10:30 Invited: Enej Ilievski

Title: Eigenstate thermalization hypothesis: lessons from the minimal model

10:30 – 10:55 Coffee break

10:55 – 11:30 Invited: Lev Vidmar

Title: - Mechanism of eigenstate thermalization breakdown

11:30 – 11:50 Contributed:

Title:

11:50 – 12:25 Invited: Raquel Queiroz

Title: Quantum geometry: bound electrons in infinite lattices

12:25 Lunch break

15:00 Social Program

19:30 Banquet

## **Thursday, 30 October**

9:00 – 9:35 Invited: Hai-Qing Lin

Title: Entanglement spectrum, topology, and quantum criticality

9:35 – 9:55 Contributed:

Title:

9:55 – 10:15 Contributed:

Title:

10:15 – 10:40 Coffee break

10:40 – 11:15 Invited: Jonathan D'Emidio

Title: Entanglement entropy at deconfined and Gross-Neveu critical points

11:15– 11:35 Contributed:

Title:

11:35 – 11:55 Contributed:

Title:

11:55 – 12:30 Invited: Pontus Laurell

Title: Witnessing entanglement and quantum correlations in condensed matter

12:20 Lunch break

15:00 – 16:00 Invited Colloquium: Ralph Claessen

Title: Surfaces go topological–atomic monolayers as 2D quantum materials

16:00 – 16:35 Invited: Jed Pixley

Title: Controlling chaos on classical and quantum computers

16:35 – 17:00 Coffee break

17:00 – Poster presentations (2 minutes each) and poster session

(Poster frame size: 180cm height from the ground x 120cm width)

## **Friday, 31 October**

9:00 – 9:35 Invited: David K. Campbell

Title: Metastability and the approach to equilibrium in the FPUT problem

9:35 – 9:55 Contributed:

Title:

9:55 – 10:30 Invited: Xiwen Guan

Title: Confined and deconfined spin kinks in quasi-1D materials

10:30 – 10:55 Coffee break

10:55 – 11:30 Invited: Karlo Penc

Title: Chiral states in classical and quantum spin models

11:30 – 11:50 Contributed:

Title:

11:50 – 12:10 Contributed:

Title:

12:10 – 12:40 Summary and closing remarks