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Conference on Signatures of Topology in Condensed Matter | (smr 3330)

Monday 21 October 2019

Registration and Administrative formalities - Euler Lecture Hall (LB) (08:30-09:25)

Chair: Michele Governale - Euler Lecture Hall (LB) (09:25-14:30)

time	title	presenter
09:25	Diagnosing quantum chaos in many-body systems using entanglement as a resource	MARCEL FRANZ
10:10	Coffee break	
10:40	Atom-by-atom engineering of topological states of matter	CRISTIANE MORAIS SMITH
11:25	Characterising band topology out-of-equilibrium using Chern marker currents	GUNNAR MOELLER
11:50	Quantum size effects and optical transitions in topological-insulator nanostructures	ULRICH ZUELICKE
12:35	Lunch break	

Chair: Ewelina Hankiewicz - Euler Lecture Hall (LB) (14:30-16:35)

time	title	presenter
14:30	Majorana and Andreev Bound States in Proximitized Rashba Wires and Layers	DANIEL LOSS
15:15	Coffee break	
15:45	Impact of electron-hole pairing on surface plasmons in topological insulator thin films	DMYTRO FIL
16:10	Characterization of topological properties of 1D systems by universal properties of the boundary charge	MIKHAIL PLETYUKHOV

Tuesday 22 October 2019

Chair: Inanc Adagideli - Euler Lecture Hall (LB) (09:00-14:30)

time	title	presenter
09:00	Nanometer-scale magnetic Skyrmions studied with STM	KIRSTEN VON BERGMANN
09:45	Electrical transport in hybrid junctions of Majorana wires	NILANJAN BONDYOPADHYA
10:10	Coffee break	
10:40	Majorana Zero Mode Pairs in Superconducting Gold Surface States	JAGADEESH MOODERA
11:25	Excess equilibrium noise in a topological SNS junction between chiral Majorana liquids	DMITRII SHAPIRO
11:50	Resonant photovoltaic effect in doped magnetic semiconductors	DIMITRIE CULCER
12:35	Lunch break	

Chair: Carlo W. J. Beenakker - Euler Lecture Hall (LB) (14:30-19:30)

time	title	presenter
14:30	Quantum spin Hall and Beyond	LAURENS WIGBOLT MOLENKAMP
15:15	Coffee break	
15:45	Giant orbital diamagnetism of three-dimensional Dirac electrons in Sr ₃ PbO antiperovskite+	HIDENORI TAKAGI
16:30	Survival of the quantum anomalous Hall effect in magnetic fields due to the parity anomaly	EWELINA HANKIEWICZ
17:30	Get-together drink	

Wednesday 23 October 2019

Chair: Ulrich Zuelicke - Euler Lecture Hall (LB) (09:00-14:30)

time	title	presenter
09:00	Chiral transport in the vortex lattice of a Weyl superconductor	CARLO W. J. BEENAKKER
09:45	Transport properties of type II Weyl semimetal heterostructures in presence of magnetic field	MOITRI MAITI
10:10	Coffee break	
10:40	Topological shift current	MASASHI KAWASAKI
11:25	Detection of second-order topological superconductors by Josephson junctions	SONGBO ZHANG
11:50	Time-resolved electrical detection of chiral edge vortex braiding	INANC ADAGIDELI
12:35	Lunch break	

Thursday 24 October 2019

Chair: Ben Ruck - Euler Lecture Hall (LB) (09:00-14:30)

time	title	presenter
09:00	Elemental topological insulators: The case of bismuthene	RALPH CLAESSEN
09:45	A monolayer transition metal dichalcogenide as a topological excitonic insulator	MASSIMO RONTANI (CNR-NANO)
10:10	Group Photo	
10:15	Coffee break	
10:40	Progress in understanding monolayer WTe ₂ as a two-dimensional topological insulator	DAVID COBDEN
11:25	Electric field tuning of spacetime geometry in tilted Dirac fermions	SEYED AKBAR JAFARI
11:50	Time-reversal invariant topological superconductivity: proposals and signatures	LILIANA ARRACHEA
12:35	Lunch break	

Chair: Liliana Arrachea - Euler Lecture Hall (LB) (14:30-17:40)

time	title	presenter
14:30	Topological Crystalline Insulators with C ₂ Rotation Anomaly	HONGMING WENG
15:15	Coffee break	
15:45	Atomically thin Na ₃ Bi for topological electronics	MICHAEL S. FUHRER
16:30	2D to 3D crossover in topological insulators	CORENTIN MORICE

Poster Session and Get-together drink - Euler Lecture Hall (LB) (17:00-18:30)

All participants of the Conference on Signatures of Topology in Condensed Matter are cordially invited to a Get-together drink.

Friday 25 October 2019

Chair: Fabio Taddei and Michael S. Fuhrer - Euler Lecture Hall (LB) (09:00-15:25)

time	title	presenter
09:00	Theory of Magnetoresistance in Three-Dimensional Dirac Materials	SHUN-QING SHEN
09:45	Parity readout mechanisms for Majorana qubits	ANDRAS PALYI
10:10	Coffee break	
10:40	Magnetotransport signatures of topological properties in thin films of room-temperature ferromagnetic Weyl semi-metal Co ₂ MnGa	SIMON GRANVILLE
11:05	Novel magnetism, superconductivity, and tunable mixed valence in rare earth nitrides	BEN RUCK
11:50	Closing	
12:35	Lunch break	
14:30	End of conference	