

Workshop on Topological effects and synthetic gauge/magnetic fields for atoms and photons (29 Sep -1 Oct 2015, Zagreb, Croatia)

Program

Tuesday, September 29th

9.00-10.00	Registration	
10.00-10.20	Hrvoje Buljan	Welcome and opening remarks
	<i>Chairman: Mordechai Segev</i>	
10.20-10.50	Alex Szameit	Realizing Photonic Topological Insulators and Topological Anderson Insulators
10.50-11.20	Mikael Rechtsman	New Horizons in Topological Photonics: Quantum and non-Hermitian Effects
Coffee break		
11.50-12.20	Darrick Chang	Long-range interactions of atoms and photons in photonic crystals
12.20-12.40	Tomoki Ozawa	Four dimensional quantum Hall effect with ultracold gases and photonics
12.40-13.00	Michael Pasek	Measurement of a Topological Edge Invariant in a Microwave Network
Lunch break		
	<i>Chairman: Francesca Ferlaino</i>	
14.30-15.00	Michael Fleischhauer	Topological edge states and quantized transport in unitary and dissipative one-dimensional bosonic lattice models
15.00-15.30	Thomas Pohl	Controllable Photon Interactions in Atomic Rydberg Gases
15.30-15.50	Alexej I. Streltsov	General protocol to measure fragmentation in correlated BECs
Free time		

Wednesday, September 30th

	<i>Chairman: Michael Fleischhauer</i>	
9.00-9.40	Klaus Sengstock	Magnetism with and without magnetism: Different regimes of magnetic-like interactions in quantum gases
9.40-10.10	Gediminas Juzeliunas	Artificial magnetic field and spin-orbit coupling for ultracold atoms
10.10-10.40	Marcello Dalmonte	Exotic quantum criticality and dynamical gauge fields with Rydberg-dressed atoms
Coffee break		
11.20-11.50	Francesca Ferlaino	Exploring Dipolar Quantum Phenomena with Ultracold Erbium Atoms
11.50-12.20	Fabrice Gerbier	Hofstadter optical lattice for ultracold Ytterbium atoms
12.20-12.40	Christian Schweizer	A Thouless Quantum Pump with Ultracold Bosonic Atoms in an Optical Superlattice
12.40-13.00	Andrey Kolovsky	Edge-induced Bloch oscillations and ordinary conductivity in the presence of a gauge field
Lunch break		

	<i>Chairman: Darrick Chang</i>	
14.30-15.00	Thomas Gasenzer	Non-thermal fixed points: Universality, topology and turbulence
15.00-15.30	Giorgos Tsironis	SQUID-based metamaterials: Nonlinear dynamics, topology and quantum effects
15.30-15.50	Valentin Kasper	Schwinger pair production with ultracold atoms
15.50-17.00		Poster session

19.00 Conference dinner

Thursday, October 1st

	<i>Chairman: Thomas Gasenzer</i>	
9.00-9.30	Gregor Jotzu	Floquet-engineering topological and spin-dependent bands with ultracold fermions
9.30-10.00	Ivana Vasić	Bosonic Phases On The Haldane Honeycomb Lattice
10.00-10.30	Netanel Lindner	Topological pumping in far-from-equilibrium periodically driven systems
10.30-10.50	Michele Burrello	PT invariant Weyl semimetals in gauge symmetric systems
Coffee break		
	<i>Chairman: Antun Balaž</i>	
11.20-11.40	Andrea Trombettoni	Quantum simulation of conductivity plateaux and fractional quantum Hall effect using ultracold atoms
11.40-12.00	Danko Radić	Synthetic field-induced charge density waves
12.00-12.20	Sankalpa Gosh	Cavity Optomechanics with Ultra Cold Atoms in Synthetic Gauge Field
12.20-12.40	Jean Francois Clement	Experimental study of 2D Anderson localization with an atomic kicked rotor
12.40-13.00		Closing remarks
Departure		