# 6th International Conference on New Frontiers in Physics (ICNFP2017)

### Wednesday 23 August 2017

### Workshop on Quantum Foundations and Quantum Information - Room 2 (14:45 - 16:00)

-Conveners: Yakir Aharonov

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time [id] title	presenter
14:45 [1443] Opening words	
15:00 [1058] Ubiquitous non-local entanglement with Majorana bound states	Dr ROMITO, Alessandro
15:30 [1132] Quantum Dynamical Simulation by Quantum Walk	SHIKANO, Yutaka

#### Workshop on Quantum Foundations and Quantum Information - Room 2 (16:30 - 18:30)

-Conveners: Yakir Aharonov

time	[id] title	presenter
16:30	[1242] Pure state post-selection is universal	DIOSI, Lajos
17:00	[941] Wave function collaspe and gravity	Prof. BASSI, Angelo
	[1177] Matter waves exposed to the external world: Decoherence, gravity, complementarity and time irreversibility	Prof. FOLMAN, Ron
18:00	[1143] Testing the superposition principle with individual trapped atoms	Dr ALBERTI, Andrea

### **Thursday 24 August 2017**

### Workshop on Quantum Foundations and Quantum Information: 24 August 2017: Dedicated to Yakir Aharonov's 85th Birthday - Room 2 (09:00 - 10:30)

-Conveners: Eliahu Cohen; Avshalom Elitzur; Yakir Aharonov

time [id] title	presenter
09:00 [967] One quantum shutter can close two slits simultaneously	Prof. OKAMOTO, Ryo
09:30 [1486] Novel manifestations of quantum oblivion	Prof. ELITZUR, Avshalom
10:00 [1172] Locality and nonlocality in the interaction-free measurement	Dr ROHRLICH, Daniel

# Workshop on Quantum Foundations and Quantum Information: 24 August 2017: Dedicated to Yakir Aharonov's 85th Birthday - Room 2 (11:00 - 13:00)

-Conveners: Yakir Aharonov; Avshalom Elitzur; Eliahu Cohen

time [id] title	presenter
11:00 [1487] The fascinating properties of weak values	AHARONOV, Yakir
11:45 [1481] Faster than Fourier (pre)visited: vorticulture, noise, fractals	Prof. BERRY, Michael
12:30 [1501] The controversy about the past of a quantum particle	VAIDMAN, Lev

# Workshop on Quantum Foundations and Quantum Information: 24 August 2017: Dedicated to Yakir Aharonov's 85th Birthday - Room 2 (15:00 - 16:00)

-Conveners: Eliahu Cohen; Avshalom Elitzur; Yakir Aharonov

time [id] title		presenter
	[1193] Experimental realization of a shortcut to adiabaticity by synthetic Aharonov-Bohm effect in a qutrit	Dr PARAOANU, Sorin
15:30	[971] Statistical superdegeneracy and quantum foundations	Dr SHEEHAN, Daniel

# Workshop on Quantum Foundations and Quantum Information: 24 August 2017: Dedicated to Yakir Aharonov's 85th Birthday - Room 2 (16:30 - 18:25)

-Conveners: Avshalom Elitzur; Eliahu Cohen; Yakir Aharonov

time [id] title

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17:00 [1122] Logical Inf Information Theo	formation Theory: New Foundations for Classical and Quantury	ım Dr ELLERMAN, David
17:30 [1225] Fundamer	ntal mechanism of the quantum computational speedup	Dr CASTAGNOLI, Giuseppe

presenter

### Friday 25 August 2017

#### Workshop on Quantum Foundations and Quantum Information - Room 2 (08:30 - 10:30)

#### -Conveners: Yakir Aharonov

time [id] title	presenter
09:00 [1227] Quantum Uncertainty Relations and Related	Prof. FEI, Shao-Ming
09:30 [1199] Quantum Mechanics is Two-Thirds Local Realistic	Dr COHEN, Eli

### Workshop on Quantum Foundations and Quantum Information - Room 2 (11:00 - 13:30)

#### -Conveners: Yakir Aharonov

time	[id] title	presenter
	[974] Counter-intuitive phenomena in quantum mechanics emerging in matter-wave optical experiments	HASEGAWA, Yuji
	[1103] Weak Measurements: from Measuring Non-Commuting Observables and Testing Quantum Contextuality to Protective Measurements	Dr PIACENTINI, Fabrizio
	[1043] Ultrafast Optical Homodyne - Measuring the Fundamental Variables of Quantum Optics \$10^5\$ Times Faster	Prof. PE'ER, Avi
12:30	[1133] Quantum Cryptography with Structured Photons	Prof. KARIMI, Ebrahim