Workshop on Quantum Information Processing

School of Physics, IPM

December 27-29 (7-9 Dey, 1395)

Tuesday, December 27 (7 Dey)		
Time	**Speaker**	**Title of talk**
9:00-9:30	**Registration**	
9:30-10:15	Iman Marvian	Quantum resource theories
10:15-10:45	**Break**	
10:45-11:30	Iman Marvian	Quantum resource theories
11:30-12:15	Iman Marvian	Universal quantum emulator
12:15-14:15	**Lunch**	
14:15-15:00	Elham Kashefi	Verification of Quantum Technology - An Overview
15:00-15:30	**Break**	
15:30-16:15	Elham Kashefi	Computing on Encrypted Data - Quantum Cloud Security
16:15-17:00	Elham Kashefi	Price of Trust - The current state of Art

Wednesday, December 28 (8 Dey)		
Time	**Speaker**	**Title of talk**
9:30-10:30	Abolfazl Bayat	Impurity quantum phase transitions: a quantum information perspective
10:30-11:00	**Break**	
11:00-11:45	Ebrahim Karimi	Ultra-secure quantum cryptography with structured photons
11:45-12:30	Khabat Heshami	Light-matter interaction for photonic implementations of quantum information processing and communications
12:30-14:30	**Lunch**	
14:30-15:15	Khabat Heshami	Quantum non-demolition detection of photons and demonstration of multi-partite entanglement in solid-state atomic ensembles
15:15-15:45	**Break**	
15:45-16:45	Mahdi Hosseini	Quantum state detection and state preparation based on cavity-enhanced nonlinear interaction of atoms with single photons

Thursday, December 29 (9 Dey)		
Time	**Speaker**	**Title of talk**
9:30-10:15	Mohsen Razavi	Quantum communications technologies: now and the future
10:15-10:45	**Break**	
10:45-11:30	Mohsen Razavi	Memory-assisted quantum key distribution
11:30-12:15	Shabir Barzanjeh	A short glance through opto-electro-mechanical systems
12:15-14:15	**Lunch**	
14:15-15:00	Shabir Barzanjeh	Application of electromechanical cavities in quantum information
15:00-15:30	**Break**	
15:30-16:30	Mehdi Abdi	Cooling down to a macroscopic superposition state