

QPTn9 - Padova

22-25 May 2018

Start Time: 8:30 AM Time Interval: 30 (in minutes)

Place	Aula Nievo - Palazzo Bo		Aula Paladin - Palazzo della Ragione	
Time	Tue 22	Wed 23	Thu 24	Fri 25
8:30 AM	Registration			
9:00 AM	Opening	Session 3	Session 5	Session 8
9:30 AM	Session 1	Casten & Pietralla	Zhang	Cejnar
10:00 AM	Garcia-Ramos			
10:30 AM	Coffee break	Coffee break	Coffee break	Coffee break
11:00 AM			Session 6	
11:30 AM			Bijker & Perez	
12:00 PM				
12:30 PM				Closing
1:00 PM				
1:30 PM	Lunch	Lunch	Lunch	Lunch
2:00 PM				
2:30 PM	Session 2	Session 4	Session 7	
3:00 PM	Leviatan & Arias	Otsuka	Vretenar	
3:30 PM				
4:00 PM	Coffee break	Coffee break	Coffee break	
4:30 PM				
5:00 PM				
5:30 PM				
6:00 PM				
6:30 PM	Welcome Drink	Cultural Event		
7:00 PM	at Caffè Pedrocchi	at Accademia Galileiana		
7:30 PM				
8:00 PM			Social Dinner	
8:30 PM			at Ristorante Zairo	
9:00 PM				
9:30 PM				
10:00 PM				
10:30 PM				
11:00 PM				

Speaker	Time	Title
Session 1		
09:15 Transitional nuclei and shape coexistence		
J.-E. García-Ramos Both sides of the story: Shape coexistence and Quantum Phase Transitions		
K. Wrzosek-Lipska		Experimental evidences of shape coexistence in the Z=82 and A~100, N~60 regions
V. Werner		Prolate-oblate shape coexistence in Se isotopes from isomer spectroscopy
M. Spieker		Shape coexistence and collective low-spin states in ^{112,114} Sn studied with the (p,p'gamma) DSA coincidence technique and SONIC@HORUS
D. Vretenar		Shape-coexistence vs QPT in the rare-earth region
G. Lévai		Nuclear shape phase transitions described in terms of the sextic oscillator
P. Buganu		Bohr model description of the critical point for the first order shape phase transition
P. Georgoudis		Coexistent Shapes in the Bohr Hamiltonian: Limitations and phenomenological Challenges
S. Karampagia		Quantum Phase Transitions within the Shell Model
M. Boyukata		Signature of the gamma-softness in nuclei at the Se-Ge region
Session 2		
14:30 Symmetries & shapes in nuclei		
A. Leviatan More (Shapes) is Different (Symmetries)		
K. Nomura		Structure of Cd isotopes within the beyond-mean-field IBM
N. Gavrielov		Partial dynamical symmetry and the phonon puzzle in Cd isotopes
J.E. García-Ramos		The phase diagram of the extended Agassi model
R.F. Casten		New Predictions of the Proxy-SU(3) Approximate Symmetry
J. Dudek		Nuclear tetrahedral and octahedral symmetries: New research lines after the first identified case
P. Van Isacker		Higher-rank discrete symmetries in the IBM
J. Cseh		Phases of clustered nuclei
R. Bijker		QPT in cluster nuclei
M. Sambataro		Quartet structure of N=Z nuclei in an IBM formalism: ²⁸ Si as a nucleus at the U(5)-\bar{SU}(3) phase-transitional point
N. Minkov		Nuclear shape effects at the border of atomic energy scale
Session 3		
09:00 Empirical aspects of Quantum Phase Transitions		
R.F. Casten Caveat: Dangers lurking in assessing nuclear structure models		
N. Pietralla Quest for common semantics a few remarks to 'beta-vibration', 'shape coexistence', and 'phase transition'		
P. Koseoglou		The low-Z boundary of the N=90 phase transition ¹⁴⁸ Ce near X(5)
C. Petrache		First observation of collective rotation of an oblate nucleus at very high spin
D. Bucurescu		Nuclear level density as a signature of shape phase transitions
V. Zelevinsky		Shell model, level density and phase transitions
P. Van Isacker		Correlations between nuclear charge radii, E0 transitions and summed M1 strengths
J. Kleemann		Decay characteristics of the scissors mode in the QPT and 0v\beta\beta-partner isotopes ¹⁵ Nd and ¹⁵ Sm
T. Beck		E2 strength of the Scissors Mode and evolution of F-vector quadrupole charges over a shape phase transition
R.V. Jolos		Excitation energy dependence of the moment of inertia of well-deformed nuclei
Session 4		
14:30 Shell evolution		
T. Otsuka Underlying mechanism of shape evolution and the Quantum Phase Transition and its manifestations		
S. Leoni		Appearance of shape isomerism in the Ni isotopic chain
N. Pietralla		Shape coexistence in ⁹⁶ Zr
W. Witt		B(E2) measurement in ⁹⁸ Zr and its relation to the QPT in Zr nuclei due to Shell Evolution
P. Singh		Lifetime measurements in ⁹⁸ Zr and shape phase transition in Zr isotopes
A. Vitturi		Two-particle transfer reactions: a key tool for the study of phase transitions in nuclei
S. Sels		Studying shape staggering in Hg isotopes using Laser spectroscopy
Session 5		
09:00 Alternative approaches to phase transitions		
Yu Zhang Alternative approaches to phase transitions		
R. Budaca		Tilted-axis wobbling in odd-mass nuclei
M. Böküta		Quantum phase transitions in odd-A nuclei: The effect of the odd particle along the critical line
Session 6		
11:00 Phase transitions in atomic, molecular and other domains		
R. Bijker		
F. Pérez -Bernal An Overview of QPT and ESQPT in Molecular Systems		
G. Ch. Mellau		Saddle point localization of molecular wavefunctions
G. Ortíz		Topological superfluid phase with repulsive fermionic atoms
P. Pérez Fernández		Relationship between the ESPQT and the thermal phase transition in the Dicke model
Q. Wang		Excited-state quantum phase transition and quantum speed limit
G. Stellin		Breaking and restoration of rotational symmetry in the low-energy spectrum of light alpha-conjugate nuclei on the lattice
Session 7		
14:30 Density functional approaches to phase transitions		
D. Vretenar Introduction		
N. Sandulescu		Signature of alpha-like quartet phase transition in N=Z nuclei
P. Marevic		Nuclear clustering with and beyond the relativistic mean-field framework
J. Luis Egido		Symmetry Conserving Configuration Mixing description of odd-mass nuclei and a short discussion on pairing transitions
K. Nomura		Octupole correlations in neutron-rich odd-mass nuclei
D. Vretenar Quantum shape-phase transitions in odd-mass nuclei		
Q. B. Chen		Shape evolutions in Gd isotopes studied with five-dimensional collective Hamiltonian based on covariant DFT
N. Shimizu		Shell-model study in A~130 nuclei and chiral doublet of ¹²⁸ Cs
P. Zhao		Nuclear multiple chirality in Rh-106: a manifestation of triaxial shape coexistence
Session 8		
09:00 Excited states phase transitions		
P. Cejnar Excited state quantum phase transitions: Introduction		
W. Kopylov (1)		Excited state quantum phase transition in the Lipkin-Meshkov-Glick model and its influence on the non-adiabatic dynamics
W. Kopylov (2)		Smearing out of the excited state quantum phase transition properties in the dissipative LMG model and their restore by delayed feedback control

L. Santos	Nonequilibrium quantum dynamics: from full random matrices to real systems
M. Kloc	Excited state quantum phase transitions and quantum quench dynamics in an extended Dicke model
M. Šindelka	Excited state quantum phase transitions studied from a non-Hermitian perspective
P. Stránský	Exceptional points for randomly perturbed critical Hamiltonians
R. Jolos	Analytical description of the excited state phase transition to octupole deformed shape in alternating parity bands
A. Qureshi	Landau-Zener transitions in the Pechukas-Yukawa formalism under the influence of Brownian noise