
PROGRAM

THE 1ST APCTP-TRIUMF JOINT WORKSHOP ON “Understanding Nuclei from Different Theoretical Approaches”

Venue: APCTP, Pohang, Korea

Period: September 14 - 19, 2018

Workshop homepage: <https://www.apctp.org/plan.php/apctp-triumf-2018>

Hosted and supported by: APCTP, CHEP at KNU



September 14

Friday 9/14

Session 1 (Convener: Y. Oh)		
8:15 AM	Registration	
8:45 AM	Welcome remarks	Yunkyu Bang (President of APCTP)
9:00 AM - 9:45 AM	Skyrmion models of nuclei	Nicholas S. Manton (Univ. of Cambridge)
9:45 AM - 10:30 AM	Nuclear clusters and binding energies in the Skyrme model	Sven Bjarke Gudnason (Keio Univ.)
10:30 AM - 11:00 AM	Coffee Break	
11:00 AM - 11:45 AM	Neutron stars from the Skyrme model perspective	Andrzej Wereszczynski (Jagiellonian Univ.)
12:00 PM - 2:30 PM	Lunch	
Session 2 (Convener: M. Paranjape)		
2:30 PM - 3:15 PM	Hot and dense neutron-rich matter in supernovae and neutron star mergers	Jeremy Holt (Texas A&M Univ.)
3:15 PM - 4:00 PM	Messages from GW170817 on compact star matter	Hyun-Kyu Lee (Hanyang Univ.)
4:00 PM - 4:30 PM	Coffee Break	
4:30 PM - 5:15 PM	Nuclear force at short distance: a constituent quark model perspective	Su Houn Lee (Yonsei Univ.)
5:15 PM	Adjourn (approximate)	
6:30 PM	APCTP Reception	

September 15

Saturday 9/15

Session 3 (Convener: N.S. Manton)		
9:00 AM - 9:45 AM	Landau-Migdal Fermi-liquid fixed-point approach to nuclear dynamics	Mannque Rho (Saclay)
9:45 AM - 10:30 AM	Skyrmions with low binding energies	J. Martin Speight (Univ. Of Leeds)
10:30 AM - 11:00 AM	Coffee Break	
11:00 AM - 11:45 AM	Abelian decomposition and monopole condensation in QCD	Yong Min Cho (Seoul Nat. Univ. & Konkuk Univ.)
12:00 PM - 2:30 PM	Lunch	
Session 4 (Convener: S.H. Lee)		
2:30 PM - 3:15 PM	From dilute matter to the equilibrium point in the energy-density-functional theory	Marcella Grasso (Orsay)
3:15 PM - 4:00 PM	Nuclear energy density functionals	Xavier Roca-Maza (Univ. Milan)
4:00 PM - 4:30 PM	Coffee Break	
4:30 PM - 5:15 PM	Theories of nuclear large amplitude collective motion	Takashi Nakatsukasa (Univ. of Tsukuba)
5:15 PM	Adjourn (approximate)	

September 16

Excursion and banquet at Gyeongju

Sunday 9/16

6:30 PM **BANQUET** (수리회: <http://www.surime.co.kr/e00/01.html>)

September 17

Monday 9/17

Session 5 (Convener: P. Navratil)		
9:00 AM - 9:45 AM	New ideas on EFT approach to nuclear system	Jerry Yang (Chalmers Univ.)
9:45 AM - 10:30 AM	From homogeneous matter straight to finite nuclei: Setting free the effective mass	Panagiota Papakonstantinou (IBS)
10:30 AM - 11:00 AM	Coffee Break	
11:00 AM - 11:45 AM	Progress in density-matrix theory and applications	M. Tohyama (Kyorin Univ.)
12:00 PM - 2:30 PM	Lunch	
Session 6 (Convener: A. Wereszczynski)		
2:30 PM - 3:15 PM	Topology change, emergent symmetry of QCD and neutron star properties	Yongliang Ma (Jilin Univ.)
3:15 PM - 4:00 PM	Nuclear matter from skyrmion crystal approach in magnetic field	Mamiya Kawaguchi (Nagoya Univ.)
4:00 PM - 4:30 PM	Coffee Break	
4:30 PM - 5:15 PM	Properties of nuclei in chiral soliton model	Ulugbek Yakhshiev (Inha Univ.)
5:15 PM	Adjourn (approximate)	

September 18

Tuesday 9/18

Session 7 (Convener: M. Tohyama)		
9:00 AM - 9:45 AM	Ab initio symplectic no-core configuration interaction framework	Anna McCoy (TRIUMF)
9:45 AM - 10:30 AM	Ab initio theory for nuclear weak processes	Jason Holt (TRIUMF)
10:30 AM - 11:00 AM	Coffee Break	
11:00 AM - 11:45 AM	Nuclear ground-state properties from laser spectroscopy	Ronald Garcia-Ruiz (CERN)
12:00 PM - 2:30 PM	Lunch	
Session 8 (Convener: S. Gandolfi)		
2:30 PM - 3:15 PM	Nuclear structure and dynamics from ab initio theory	Petr Navratil (TRIUMF)
3:15 PM - 4:00 PM	Ab initio calculations for exotic nuclei	Matteo Vorabbi (TRIUMF)
4:00 PM - 4:30 PM	Coffee Break	
4:30 PM - 5:15 PM	Tidal deformability of neutron stars and gravitational waves	Chang-Hwan Lee (Pusan Nat. Univ.)
5:15 PM	Adjourn (approximate)	
6:30 PM	Dinner together	

September 19

Wednesday 9/19

Session 9 (Convener: Jason Holt)		
8:45 AM - 9:30 AM	Quantum Monte Carlo calculations of properties of nuclei	Stefano Gandolfi (Los Alamos)
9:30 AM - 10:15 AM	Ab initio NCSM study of nuclei	Youngman Kim (IBS)
10:15 AM - 10:45 AM	Coffee Break	
10:45 AM - 11:30 AM	Heavy nuclei in neutron star crust	Yeunhwan Lim (Texas A&M Univ.)
11:30 AM - 12:15 PM	Decay of the false Skyrmiion	Manu Paranjape (Montreal Univ.)
12:15 AM	Closing remarks	
12:30 PM - 2:00 PM	Lunch	
2:00 PM	Adjourn (approximate)	