

## NPCSM workshop program (1st and 2nd weeks)

Daily discussion & coffee time: 11:00-11:30, 14:30-15:30

Oct.17 (Mon):

- Settle in (Morning, Coffee time:10:30-11:30) —
- Discussion and Coffee (14:30-15:30) —
- Welcome reception (informal) (18:00-) —

Oct.18 (Tue): High density symmetry energy

- [10:00-11:00] Bao-An Li (Texas A&M) “*Probing Symmetry Energy with Terrestrial Nuclear Reactions*”
- [11:30-12:30] Tetsuya Murakami (Kyoto) “*Symmetry energy at supra nuclear density from heavy-ion reactions (tentative)*”
- [14:00-15:00] Akira Ono (Tohoku) “*Production of clusters and pions in heavy-ion collisions*”
- [15:00-15:30] Natsumi Ikeno (Tottori) “ *$\pi^-/\pi^+$  ratio in asymmetric heavy-ion collisions (tentative)*”

Oct.19 (Wed): Three-body force, Supernova

- [10:00-11:00] Takumi Doi (RIKEN) “*Two- and three-baryon potential from lattice QCD (tentative)*”
- [11:30-12:30] Christian D. Ott (Caltech) “*Simulations of Three-Dimensional Core-Collapse Supernovae*”

Oct.20 (Thu): Ab initio approaches

- [10:00-11:00] Michio Kohno (RCNP) “*Nuclear matter EOS in the leading order Brückner theory with the three-nucleon interaction from chiral EFT (tentative)*”
- [11:30-12:30] Ingo Tews (INT Seattle) “*Quantum Monte Carlo calculations of neutron matter with chiral effective field theory interactions*”

Oct.21 (Fri): Neutron star matter EOS

- [10:00-11:00] Masatoshi Takano (Waseda) “*Variational method with explicit energy functionals for nuclear matter*”
- [11:30-12:00] Helena Pais (Coimbra) “*The crust-core transition and the stellar matter equation of state*”
- [12:00-12:30] Akira Ohnishi (YITP) “*Three Baryon Interaction in the Quark Cluster Model — 3B Interaction from Determinant Interaction of Quarks as an example*”

Oct.24 (Mon): Nuclear force, Finite Temperature

- Settle in (Morning) —
- [14:00-15:00] Thomas Rijken (Nijmegen) “*Interaction between baryons (tentative)*”
- [15:30-16:30] Omar Benhar (INFN/Sapienza) “*Unified Description of Equilibrium and Non Equilibrium Properties of Hot Nuclear Matter*”

Oct.25 (Tue): Ab initio approaches

- [10:00-11:00] Carlo Barbieri (Surrey) “*Neutron-rich nuclei from saturating chiral interactions*”
- [11:30-12:30] Arianna Carbone (TU Darmstadt) “*Nuclear matter from a Green’s function approach*”

Oct.26 (Wed): Hyperon Puzzle

- [10:00-11:00] Yasuo Yamamoto (RIKEN/Tsuru) “*Hyperonic many-body effect in hypernuclei and neutron-star matter*”
- [11:30-12:30] Evgeni Kolomeitsev (Matej Bel) “*Hyperon puzzle and the RMF model with scaled hadron masses and coupling constants*”

Oct.27 (Thu): Neutron Star Physics

- [10:00-11:00] Giuseppe Pagliara (Ferrara) “*The scenario of two families of compact stars*”

[11:30-12:00] Hajime Sotani (NAOJ) “*Neutron star asteroseismology*”

[12:00-12:30] Kamal Pangeni (WU St. Louis) “*Gap Bridging enhancement in nuclear matter*”

Oct.28 (Fri): Mini-workshop day

[10:00-11:00] Thomas Klahn (Wroclaw) “*vBag - a bag model extension with non-perturbative corrections*”

— Coffee Break (10:50-11:20) —

[11:30-12:30] Tatsuyuki Takatsuka (RIKEN/Iwate) “ *$\Lambda$ -Superfluidity under the Equation of State for Massive Neutron Stars*”

— Lunch (12:30-14:00) —

[14:00-14:40] Toshitaka Tatsumi (Kyoto) “*Fluctuation effects in the inhomogeneous chiral transition*”

[14:40-15:10] Marcio Ferreira (Coimbra) “*Magnetized phase diagram*”

[15:10-15:40] Bruno Franzon (FIAS) “*Effect of strong magnetic fields in compact objects*”

— Coffee Break (15:40-16:10) —

[16:10-16:50] Takumi Muto (Chiba IT) “*Interplay of kaon condensation and hyperons in dense matter EOS*”

[16:50-17:20] Stephan Stetina (INT Seattle) “*Instabilities of relativistic superfluids*”

— Party (18:00-20:00) —