

Compact stars and gravitational waves

October 31 - November 4, 2016
 Yukawa Institute for Theoretical Physics, Kyoto University

Oct.31 (Mon)	Nov.1 (Tue)	Nov.2 (Wed)	Nov.3 (Thu)	Nov.4 (Fri)
9:00- Registration	9:20-10:20 J. Lattimer	9:20-10:20 C. Horowitz	9:20-10:20 D. Lorimer	9:20-10:20 S. Aoki
9:50 Opening	Break	Break	Break	Break
10:00-11:00 L. Nuttal	10:40-11:40 N. Chamel	10:40-11:40 M. Baldo	10:40-11:40 B. Zhang	10:40-11:40 L. Roberts
Break	Break	Break	Break	Break
11:30-12:30 S. Nissanke	11:50-12:50 L. Rezzolla	11:50-12:50 T. Hatsuda	11:50-12:50 T. Enoto	11:50-12:50 Y. Sekiguchi
Lunch	Lunch	Lunch	Lunch	12:50 Close
14:00-15:00 M. Tanaka	14:00-15:00 T. Janka	14:30-15:30 P. Freire	14:30-15:30 S. Gandolfi	
Break	Break	Break	Break	
15:30-16:30 K. Nomoto	15:30-16:30 N. Tominaga	16:00-17:00 H. Tamura	16:00-17:00 T. Piran	
16:30-18:00 Short presenta- tion for poster I*	16:30-18:00 Short presenta- tion for poster II*			
18:00- Poster session I & Reception	18:00- Poster session II & Wine	18:30- Banquet		

*The “poster preview” sessions by the poster presenters. Each slot is 3 minutes long.

October 31 (Monday)

- 9:50-10:00
Masaru Shibata (YITP)
“Opening address”
- 10:00-11:00 Morning Session I (*Chair: M. Shibata*)
Laura Nuttall (Syracuse)
“Observing Gravitational Waves with Advanced LIGO”
- 11:30-12:30 Morning Session II (*Chair: M. Shibata*)
Samaya M. Nissanke (Radboud)
“Characterizing compact object mergers using gravitational wave and electromagnetic observations”
- 14:00-15:00 Afternoon Session I (*Chair: Y. Suwa*)
Masaomi Tanaka (NAOJ)
“Kilonova/Macronova Emission from Compact Binary Mergers”
- 15:30-16:30 Afternoon Session II (*Chair: Y. Suwa*)
Ken’ichi Nomoto (IPMU)
“Evolution of massive stars to form binary black holes”
- 16:30- Short presentation for poster I and Poster session I (*Chair: Y. Suwa*)

November 1 (Tuesday)

- 9:20-10:20 Morning Session I (*Chair: K. Kiuchi*)
James M. Lattimer (Stonybrook)
“Constraints on Compact Star Radii and the Equation of State From Gravitational Waves, Pulsars and Supernovae”
- 10:40-11:40 Morning Session II (*Chair: K. Kiuchi*)
Nicolas Chamel (Bruxelles)
“Structure and equation of state of neutron-star crusts”
- 11:50-12:50 Morning Session III (*Chair: K. Kiuchi*)
Luciano Rezzolla (Frankfurt)
“Binary neutron stars mergers: progress report from Frankfurt”
- 14:00-15:00 Afternoon Session I (*Chair: K. Sumiyoshi*)
Hans Thomas Janka (MPA)
“Where do the *r*-process elements come from? Astrophysical source models and implications”
- 15:30-16:30 Afternoon Session II (*Chair: K. Sumiyoshi*)
Nozomu Tominaga (Konan)
“Search for optical counterparts of gravitational waves”
- 16:30- Short presentation for poster II and Poster session II (*Chair: Y. Suwa*)

November 2 (Wednesday)

- 9:20-10:20 Morning Session I (*Chair: H. Nakada*)
Charles J. Horowitz (Indiana)
“Neutron rich matter, the symmetry energy and nuclear pasta”
- 10:40-11:40 Morning Session II (*Chair: H. Nakada*)
Marcello Baldo (INFN)
“The nuclear Equation of State”
- 11:50-12:50 Morning Session III (*Chair: H. Nakada*)
Tetsuo Hatsuda (RIKEN)
“From Quarks to Neutron Stars”
- 14:30-15:30 Afternoon Session I (*Chair: K. Morita*)
Paulo Freire (Bonn)
“Neutron star mass measurements and tests of general relativity with binary radio pulsars”
- 16:00-17:00 Afternoon Session II (*Chair: K. Morita*)
Hirokazu Tamura (Tohoku)
”Strangeness nuclear physics and neutron stars”

November 3 (Thursday)

- 9:20-10:20 Morning Session I (*Chair: K. Ioka*)
Duncan Lorimer (West Virginia)
“Fast Radio Bursts: The Story So Far”
- 10:40-11:40 Morning Session II (*Chair: K. Ioka*)
Bing Zhang (Nevada)
“Possible electromagnetic counterparts of gravitational waves”
- 11:50-12:50 Morning Session III (*Chair: K. Ioka*)
Teruaki Enoto (Kyoto)
“Observational Frontiers of Neutron Star Interior and Exterior”
- 14:30-15:30 Afternoon Session I (*Chair: K. Kotake*)
Stefano Gandolfi (Los Alamos)
“The EOS of neutron matter, and the effect of Lambda hyperons to neutron star structure”
- 16:00-17:00 Afternoon Session II (*Chair: K. Kotake*)
Tsvi Piran (Hebrew)
“TBA”

November 4 (Friday)

- 9:20-10:20 Morning Session I (*Chair: A. Ohnishi*)
Sinya Aoki (YITP)
“*Lattice QCD approach to baryon interactions*”
- 10:40-11:40 Morning Session II (*Chair: A. Ohnishi*)
Luke Roberts (Caltech)
“*Core Collapse Supernovae: Explosion models and long-term neutrino emission*”
- 11:50-12:50 Morning Session III (*Chair: A. Ohnishi*)
Yuichiro Sekiguchi (Toho)
“*Dynamical mass ejection from NS-NS mergers*”
- 12:50
Akira Ohnishi (YITP)
“*Closing remarks*”

Poster presenters I (October 31, Monday)

Y206

- I-1 Tolstov Alexey (IPMU) “*Accretion induced collapse of white dwarfs: multicolor light curve simulations*”
- I-2 Chandrasekhar Chatterjee (Keio) “*Non-Abelian vortices and zero modes in dense QCD*”
- I-3 Andre da Silva Schneider (Caltech) “*A New Open-Source Nuclear Equation of State Framework based on the Liquid-Drop Model with Skyrme Interactions*”
- I-4 Christian Drischler (TU Darmstadt) “*Applications of chiral 3N forces up to N³LO to infinite nuclear matter*”
- I-5 Canceled
- I-6 Anthea Francesca Fantina (GANIL) “*Symmetry energy : properties of nuclear matter, nuclear mass models, and neutron stars*”
- I-7 Sho Fujibayashi (Kyoto) “*neutrino-driven mass ejection from the remnant of the binary neutron star merger*”
- I-8 Ryuichi Fujita (IST) “*Gravitational waves from a particle orbiting a Kerr black hole in Brans-Dicke theory*”
- I-9 Canceled

Y306

- I-10 Kyohei Kawaguchi (YITP) “*Models of kilonova/macronova from black hole-neutron star mergers*”
- I-11 Chunglee Kim (KASI) “*Eccentric Compact Binary Inspirals and GW Parameter Estimation*”
- I-12 Toru Kojo (CCNU) “*Phenomenological QCD equations of state*”
- I-13 Koutarou Kyutoku (RIKEN) “*The unreasonable weakness of r-process cosmic rays in the neutron-star-merger nucleosynthesis scenario*”
- I-14 Shing Chi Leung (IPMU) “*The collapse conditions of accretion-induced collapse*”
- I-15 Ang Li (XMU) “*Rotating compact stars*”
- I-16 Yong-Liang Ma (Jilin) “*TBA*”
- I-17 Tatsuya Matsumoto (Kyoto) “*Ultra-long gamma-ray bursts from super-massive population III stars*”
- I-18 Masato Minamitsuji (CENTRA) “*Neutron stars in Horndeski gravity*”

Poster presenters II (November 1, Tuesday)

Y206

- II-1 Shigehiro Nagataki (RIKEN) “TBA”
- II-2 Yasutake Nobutoshi (CIT) “Baroclinic equilibria of rotating stars with Lagrange scheme”
- II-3 Shota Ohnishi (Hokkaido) “antikaon-nucleon interaction and structure of kaonic nuclei”
- II-4 Kamal Pangeni (WUSTL) “Gap Bridging enhancement in nuclear matter”
- II-5 Vasileios Paschalidis (Princeton) “One-arm Instability in Hypermassive Neutron Stars Formed in Binary Neutron Star Mergers”
- II-6 Norichika Sago (Kyushu) “Gravitational waves from a spinning particle orbiting a Kerr black hole”
- II-7 Mahboubeh Shahrbafe M. (Tehran) “Onset of free hyperons in neutron stars”
- II-8 Andre Sieverding (TUD) “The neutrino process in Core-Collapse Supernovae”
- II-9 Canceled

Y306

- II-10 Kentaro Takami (KCCT) “Gravitational-wave signal from binary neutron stars: a systematic analysis of the spectral properties”
- II-11 Masatoshi Takano (Waseda) “Variational method with explicit energy functionals for nuclear matter”
- II-12 Tomoya Takiwaki (NAOJ) “R-process Nucleosynthesis in Magnetically driven Explosion in Core-Collapse Supernovae”
- II-13 Hajime Togashi (RIKEN) “New nuclear equation of state for core-collapse supernovae with realistic nuclear forces”
- II-14 Kenji Toma (FRIS) “Evolution of an Accretion Disk in Binary Black Hole Systems”
- II-15 Yo Tsukioka (Chiba) “Influence of higher-order terms on approximation of nuclear symmetry energy”
- II-16 Annap Wongwathanarat (RIKEN) “NS kicks by gravitational tug boat mechanism”
- II-17 Shigehiro Yasui (TITech) “QCD Kondo effect in quark matter”
- II-18 Takashi Yoshida (Tokyo) “Explosive nucleosynthesis of ultra-stripped Type Ic supernovae”