



## Program

# KIAA Forum 2019: The Future of Gravitational Wave Astrophysics

(引力波天体物理的未来)

November 28–29, 2019

Kavli Institute for Astronomy and Astrophysics  
Peking University, Beijing, China

(北京大学科维理天文与天体物理研究所, 中国北京)

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# Program

## **November 28 (Thursday)**

Time	Title
08:30-08:50	Registration desk opens
08:50-09:00	Opening remarks by Prof. Xuebing Wu
Science session: Gravitational wave experiments (I) Chair: Kejia Lee	
09:00-09:30	Wei-Tou Ni (25min + 5min) Gravitational Wave Spectrum and the Future Outlook of Middle-Frequency and Low-frequency GW Detection
09:30-10:00	Yi-Ming Hu (25min + 5 min) Science with the TianQin observatory: Prospects and applications of massive black hole binaries detections
10:00-10:30	Xilong Fan (25min+5min) A Bayesian approach to multi-messenger astronomy: Identification of gravitational-wave host galaxies
10:30-11:00	Meeting photo and coffee break
Science session: Gravitational wave experiments (II) Chair: Wei-Tou Ni	
11:00-11:30	Kejia Lee (25min + 5min) progress on CPTA
11:30-12:00	Yan Wang (25min + 5min) Detecting very low frequency GWs with PTA in FAST and SKA era
12:00-12:15	Hang Yu (12min + 3min) Astrophysics and cosmology with a deci-hertz gravitational-wave detector: TianGO
12:15-14:00	Lunch
Science session: Electro-magnetic counterparts (I) Chair: Shuangnan Zhang	
14:00-14:30	Weimin Yuan (25min + 5min) Observing possible X-ray radiation associated with BNS GW mergers with Einstein Probe
14:30-15:00	Shaolin Xiong (25min + 5min) Gravitational wave high-energy electromagnetic counterpart and GECAM

15:00-15:30	Hui Sun (25min + 5min) A unified binary neutron star merger magnetar model for the Chandra X-ray transients CDF-S XT1 and XT2
15:30-15:45	Xianggao Wang (12min + 3min) The peculiar GRB 171205A and recently GRB follow up
15:45-16:15	Coffee break
Science session: Electro-magnetic counterparts (II) Chair: Weimin Yuan	
16:15-16:45	Shuang-Nan Zhang (25min + 5min) Black hole mergers are expected not to produce EM radiation, but why and why no references?
16:45-17:15	Yunwei Yu (25min + 5min) The kilonova and afterglow emission of NSMs and their implications
17:15-17:45	He Gao (25min + 5min) Constraint on the neutron star maximum mass with NS-NS merger
17:45-18:00	Shuang Du (12min + 3min) What can GRB internal plateaus tell us?
18:30-20:30	Banquet (at KIAA)

**November 29 (Friday)**

Time	Title
Science session: Fundamental physics and cosmology (I) Chair: Lijing Shao	
09:00-09:30	Rong-Gen Cai (25min + 5min) Primordial black holes and induced gravitational waves by scalar perturbation
09:30-10:00	Qing-Guo Huang (25min + 5min) Primordial Black Hole Dark Matter
10:00-10:15	Yun-Long Zhang (12min + 3min) Gravitational wave signals from axion cloud collapse
10:15-10:45	Coffee break
Science session: Fundamental physics and cosmology (II) Chair: Rong-Gen Cai	
10:45-11:15	Bin Chen (25min + 5min) Spin and Quadrupole Couplings of IMRACs
11:15-11:30	Jing Wang (12min + 3min) Quantum Effects of Gravitational Waves from Inspiring Neutron-star Binaries and Masses of Gravitational Quanta
11:30-11:45	Shaoqi Hou (12min + 3min) Gravitational Lensing of Gravitational Waves: Rotation of Polarization Plane
11:45-12:00	Poster session (Each presentation less than 2 mimues)
12:00-14:00	Lunch
Science session: Astrophysics (I) Chair: Kohei Inayoshi	
14:00-14:30	Youjun Lu (25min + 5min) Prospects on multiwavelength GW observations: stellar mass binary coalescence and GW background
14:30-15:00	Rainer Spurzem (25min + 5min) The Search for Black Holes and Gravitational Waves using Supercomputers
15:00-15:15	Yun Fang (12min + 3min) Dynamics of compact binaries revolving around a spinning SMBH and the astrophysical applications
15:15-15:30	Alejandro Torres Orjuela (12min + 3min) Gravitational Waves from Moving Sources

15:30-16:00	Coffee break
Science session: Astrophysics (II) Chair: Bin Chen	
16:00-16:30	Qiuhe Peng (25min + 5min) A unified model of both supernova explosion and the Hot Big Bang of the Universe driven by magnetic monopoles
16:30-17:00	Ang Li (25min + 5min) Compact Star Equation of State and the Maximum mass
17:00-17:15	Quan Cheng (12min + 3min) Gravitational wave emissions from newborn accreting magnetars
17:15-17:30	Liangduan Liu (12min + 3min) Constraining the long-lived magnetar remnants in short gamma ray bursts from late time radio observations
17:30-17:45	Closing remarks
End of the forum	

## Poster presentations

Name	Title
Xiulin Huang	Gauge method for a special spinor field transformation
Bofeng Wu	Analytical analysis on the orbits of Taiji spacecrafts
Yan Xu	The influence of antikaon condensations on nucleon $1 S 0$ superfluidity in neutron star matter
Tian-Ci Zheng	Three-peaked SNe observations
Weiwei Tan	TBD
Hai Yu	USING STRONG LENSING AS A GIANT TELESCOPE TO LOCALIZE THE HOST GALAXY OF GRAVITATIONAL WAVE