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# 国台学术报告 NAOC COLLOQUIUM

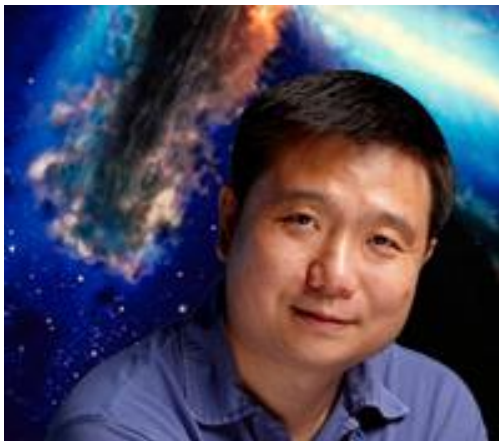
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**Time: Wed. 2:30 PM, June 22**      **Location: A601, NAOC**

## Electromagnetic counterparts of gravitational waves

**Prof. Bing Zhang**

**University of Nevada, Las Vegas, USA**



Dr. Bing Zhang is a theoretical astrophysicist. He is a professor of astrophysics at University of Nevada, Las Vegas, a Chang Jiang Visiting Chair professor of Peking University, and an elected fellow of American Physics Society. He is known for a number of influential theoretical works in high energy astrophysics, especially on the physical mechanisms of gamma-ray bursts and pulsars. His recent research interests include electromagnetic counterparts of gravitational wave sources, fast radio bursts, and tidal disruption events, among others. He has published more than 280 refereed papers which are widely cited.

### **Abstract**

I will discuss possible electromagnetic (EM) counterparts of  $\sim$ kHz gravitational wave (GW) sources including NS-BH mergers, NS-NS mergers, and BH-BH mergers. The possible EM signals include short-duration GRBs and afterglows, kilo-nova (merger-nova) and afterglows, possible X-ray counterparts to NS-NS mergers, as well as a more speculative possible connection with fast radio bursts. I will discuss how detections/non-detections of these counterparts for current and future LIGO/Virgo GW sources may advance our understanding of the physics of compact star mergers, especially NS equation-of-state and the possible charges carried by BHs and NSs. Prospects of detecting EM counterparts using SVOM, EP, GWAC, and FAST will be discussed.

*All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.*