



### Spin and orbital correlation of Fe-based superconductors and their strong quantum magnetic fluctuation

**Time: 2:00pm, Dec. 7, 2015 (Wednesday)**

**2016 12 7**

**2:00**

**Venue: Room w563, Physics building, Peking University  
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It has been eight years since the discovery of the new families of Fe-based high-temperature superconductors. As more families discovered and more accurate experiments performed, richer and more interesting observations are added to the outstanding puzzle of high-temperature superconductivity. This talk will focus on the local orbital and spin correlations that host of the superconductivity, and the strong quantum magnetic fluctuation observed in all the families. Particularly, Recent puzzles of pressure induced magnetic order in FeSe will be discussed, which leads to a surprising physical effect: larger local moments actually fluctuate stronger, contrary to the common lore from the Heisenberg model.

After graduating from University of Tennessee at Knoxville, Wei Ku worked as a postgraduate researcher in University of California at Davis with WE Pickett and RT Scalettar, before joining Brookhaven National Laboratory as a Staff Scientist and Stony Brook as an Adjunct Professor. Early this year, he joined Shanghai Jiao Tong University as a Zhiyuan Chaired Professor under the National Qianren Project. His research interests include electronic structure of strongly correlated materials, effects of disordered impurities in materials, high-temperature superconductivity, and electronic excitations of real materials.