

## A New Low-Background Facility in China Jinping underground Lab

China JinPing underground Laboratory(CJPL) is the deepest underground lab with 2400 meters rock overburden. In the past decade, two dark matter experiments( CDEX and PandaX) and one solar neutrino experiment had been settled in the Jinping-I, and 2 low-background gamma spectrometers(GeTHUs) are also put into routine measurement. Since available space room less in Jinping-I, the construction of Jinping-II had been started in Dec. 2014 and the civil engineer of it was finished in Aug. 2016. From then on, a new low-background facility in Jinping-II, called Deep Underground and ultra-low Radiation background Facility for frontier physics experiments(DURF) , is proposed by Jinping lab. There are three different shielding devices to achieve ultra-low background for dark matter experiments, and one underground lab of ultra-low radioactivity measurement and analysis. On Dec. 23 2016, DURF is selected to be a candidate project of National Major S&T infrastructure of China. On Dec.13 2018, the feasibility report of DURF were approved and the fund is 177 million euros or so. In the presentation, the design and contents of DURF would be introduced detailly.

**Authors:** Dr ZENG, Zhi (Tsinghua University); Dr XUE, Tao (Tsinghua University); Dr MA, Hao (Tsinghua University); Prof. CHENG, Jianping (Beijing Normal University)

**Presenter:** Dr ZENG, Zhi (Tsinghua University)