

## Status of XMASS experiment

*Tuesday, 10 September 2013 14:20 (20 minutes)*

“The XMASS experiment aims for direct detection of dark matter using single-phase liquid xenon. The current phase XMASS-I detector has the largest mass of the target (835kg in total, 100kg in a fiducial volume) and achieves the lowest energy threshold (0.3keV electron equivalent). A next phase detector, XMASS-1.5, with total 5ton (1ton in a fiducial volume) of liquid xenon is planned to start in 2015. In this talk, we will report results on searches with the XMASS-I (low mass WIMPs, solar axions, annual modulation of event rate at low energy, and inelastic scattering of  $^{129}\text{Xe}$  nuclei by WIMPs), current status of hardware modification of XMASS-I for reducing background, and progress of designing XMASS-1.5.”

**Primary author:** MORIYAMA, Shigetaki (ICRR, University of Tokyo)

**Presenter:** MORIYAMA, Shigetaki (ICRR, University of Tokyo)

**Session Classification:** Dark Matter III

**Track Classification:** Dark Matter