

# Physics Colloquium

Michigan Technological University

Thursday, October 10, 2013

at 4:00 pm

Room 139 Fisher Hall



## The Large High Altitude Air Shower Observatory (LHAASO):

### Science Goals and Expected Performances

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**Abstract:** The Large High Altitude Air Shower Observatory (LHAASO) is designed to search for cosmic-ray sources by the measurement of gamma rays up to 1 PeV, to survey the whole northern sky for gamma-ray sources above 300 GeV, and to study cosmic-ray physics from 10 TeV to a few hundreds of PeVs. The LHAASO observatory will be located at high altitude (~4300m, probable site in Yunnan province, China) and will include different detectors with known techniques, each of them being optimized for one of these goals. The LHAASO observatory is complementary to existing detectors or projects in this field and can bring insight to several fundamental open questions in the understanding of high-energy cosmic objects and phenomena.

**Biography:** Professor Tiina Suomijarvi received her Master's degree in Nuclear Physics in Finland, then continued on to her PhD in Nuclear Physics at the University of Paris-XI. She became an Associate Professor there in 1988, and is now a highest rank Professor. In 1999, she changed from experimental nuclear physics to astroparticle physics and subsequently became a leader in the Pierre Auger Observatory. She speaks 5 languages and is a frequent member of panels and committees for large scale European research projects.

She was awarded the French National Honor, "Chevalier de l'Order National du Merite" in 2011.