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共催：九州大学 素粒子実験研究室
九州大学 粒子物理学研究室

講師：Jae Yu 氏 (University of Texas at Arlington)

演題：A Quest for the Origin of the Universe

日時：5月27日(金) 16:00～

場所：理学部 物理第3講義室(理学部2号館2階2249室)

概要

High Energy Physics is a field of physics that pursues understanding the fundamental building blocks of matter and the forces between them. For these, the field uses powerful particle accelerators to probe deeper into ever smaller scales in the universe and complex detectors to analyze the phenomena emerging from the accelerator. The Large Hadron Collider experiments at CERN have started taking data early 2010 and are producing results in pursuit for the last undiscovered particle, the Higgs boson. One of the next generation particle accelerators for even more precise understanding of the universe is that collides electrons and positrons on a straight line. The UTA High Energy Physics group has been working on developing an advanced calorimeter - an energy measuring device - for this and other future accelerators using a new detector technology, the Gas Electron Multiplier (GEM). In the process of development, we have noticed that GEM detector is sensitive to X-rays and other radiations and have started collaborating with many institutions around the world, including the University of Texas at South Western Medical Center, for its use in everyday lives. In this talk, I will explain High Energy Physics, selected recent results from the ATLAS experiment at the Large Hadron Collider, the linear collider and the principles of GEM detector and its potential use on everyday lives.

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