

Seminar

Date: Friday 09th Nov. 2018 / Time: 9:30 am – 10:30 am / Place: Room 408F, Building T1

Campus: 334 Nguyễn Trãi, Thanh Xuân, Hà Nội

Kính mời thầy cô và các bạn quan tâm đến dự / Everyone is welcome !

Speaker: Dr. TRAN MINH HIEU (Department of Theoretical Physics - School of Engineering Physics, Hanoi University of Science and Technology)

Title: SUPERSYMMETRY: FROM THE HIERARCHY PROBLEM TO DARK MATTER AND GRAND UNIFICATION

Abstract: In spite of the undeniable success of the standard model (SM) in predicting numerous experimental results, there are many evidences that this model itself is not enough to fully describe the Nature. Motivated by the gauge hierarchy problem of the SM, supersymmetry (SUSY) introduces new partners to the SM particles, forming the so-called supermultiplets. With this special symmetry between fermions and bosons, the extended SM can predict the existence of dark matter as well as the grand unification of all the gauge couplings below the Planck scale. Recently, the Large Hadron Collider and the dark matter detection experiments have been actively looking for signals from these hypothetical particles resulting in the severe restriction of the viable parameter space. As a demonstration, the implication of the experimental constraints on several SUSY models will be presented.