

Gamma-Ray Burst Physics

Tuesday, 9 November 2010 17:00 (0:30)

Abstract content

Gamma-Ray Bursts (GRBs) are the most powerful explosion in the universe. They are possible candidates of the sources of Ultra-high energy cosmic rays (UHECRs) and very high-energy neutrinos/gamma-rays. I would like to review the explosion mechanism of GRBs and how UHECRs can be produced in GRBs. I would like to present our recent study on the central engine of GRBs with some movies of numerical simulations. I would like to give our recent study on production of UHECRs very high-energy neutrinos in GRBs.

Summary

Primary author(s) : Prof. NAGATAKI, Shigehiro (Yukawa Institute for Theoretical Physics, Kyoto University)

Presenter(s) : Prof. NAGATAKI, Shigehiro (Yukawa Institute for Theoretical Physics, Kyoto University)

Session Classification : Session II NU.CR

Track Classification : Neutrino physics and cosmic rays