



ID de Contribution: 39

Type: Non spécifié

Search for Transient Sources with IceCube

lundi 18 mai 2009 09:30 (30 minutes)

IceCube, currently under construction in the glacial ice at the geographic South Pole, will be the first neutrino telescope comprising a volume of one cubic kilometer. At the moment three quarters of the detector has been completed and is already taking data while the full detector will be finished in the austral summer of 2010/11. The search for neutrinos of astrophysical origin is among the primary goals of the IceCube neutrino telescope. Source candidates include galactic objects like supernova remnants (SNRs) as well as extragalactic objects like Active Galactic Nuclei (AGN) and Gamma-Ray Bursts (GRBs). We present an overview of the project with special emphasis on results of searches for GRBs and other transient sources. Online neutrino candidate selection combined with fast reconstruction algorithms allow IceCube to trigger a network of optical telescopes, which then search for a possible electromagnetic counterpart. The performance and sensitivity of IceCube's optical follow-up program will be presented.

Auteur principal: Mlle FRANCKOWIAK, Anna (Humboldt University, Berlin)

Orateur: Mlle FRANCKOWIAK, Anna (Humboldt University, Berlin)

Classification de Session: Detector status