

ICECUBE: PHYSICS POTENTIAL

Per Olof Hult for the Icecube Collaboration

Department of Physics, Stockholm University, Box 6730, SE-113 85 Stockholm, Sweden.

`hult@physto.de`

The proposed neutrino telescope, IceCube, is planned to be deployed around the existing AMANDA-II neutrino telescope at the South Pole. The new telescope is designed to reach up to one km² in effective area sensitivity for high energy neutrinos. The scientific potential for the telescope will be discussed. The estimated sensitivity for neutrinos from AGN, GRB, supernovae (high and low energies), WIMPs and magnetic monopoles, will be given.