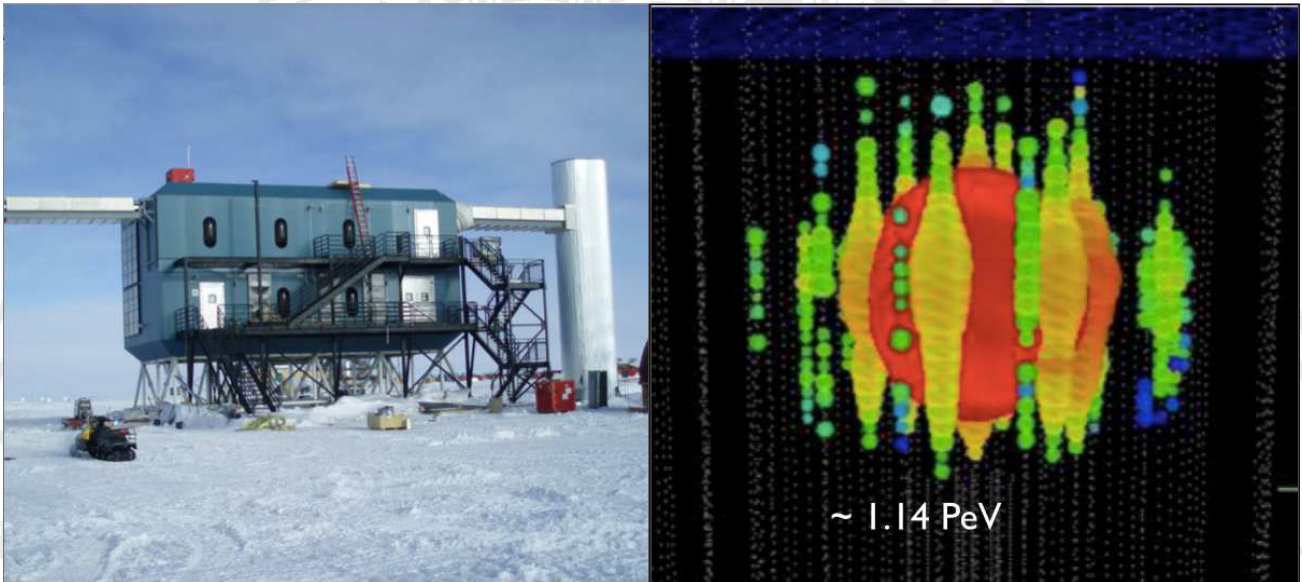


# PHYSIKALISCHES KOLLOQUIUM

AM 30. JUNI 2014 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



**ICECUBE:**  
**THE START OF HIGH-ENERGY NEUTRINO ASTRONOMY**  
DR. CHRISTIAN SPIERING  
*DESY*

First ideas to build a large underwater neutrino detector started in 1973. After a forty-year march, in 2013 we got the first glimpse of the promised land: IceCube, the cubic kilometer neutrino telescope at the South Pole has detected high-energy neutrino events which hardly can be explained by interactions of neutrinos generated in the Earth's atmosphere. These observations open a third window to the high-energy universe (after charged cosmic rays and gamma rays).

The talk gives a short introduction into history, physics goals and functional principles of neutrino telescopes and then focuses on the recent IceCube results. A discussion of future perspectives of the field will conclude the talk.