



## ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

# PHYSICS COLLOQUIUM

**Thursday, 27 February 2014**

**17:00 -18:00**

**3<sup>rd</sup> Floor Seminar Room**

**“High-energy neutrino astronomy: a first glimpse to the promised land”**

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### **Abstract**

First ideas to build a large underwater neutrino detector started in 1973. After a forty-year march we now are close to the promised land: IceCube, the cubic kilometer neutrino telescope at the South Pole reports high-energy neutrino events which hardly can be explained by interactions of neutrinos generated in the Earth's atmosphere. If confirmed, these observations would 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 to the results obtained during the last 2 years by IceCube and ANTARES. A discussion of future perspectives of the field will conclude the talk.