

DESY Seminar

21 December 2004, 17:00, DESY Hörsaal

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Neutrino Telescoping in the Mediterranean: ANTARES, KM3NeT and Acoustics

Neutrinos are ideal messengers for astrophysical investigations since they traverse long distances in space without absorption or deflection by magnetic fields. Hence, neutrino telescopes, detecting cosmic neutrinos with energies exceeding about 50 GeV, promise to open a new window to the universe. Their realization requires to instrument huge target masses, usually naturally abundant water or ice where neutrino interactions are detected and reconstructed via the Cherenkov light emitted by the charged reaction products. In my presentation, I will focus on the technical concepts and the physics objectives of the ANTARES neutrino telescope that is under construction near Toulon. In an outlook to the future, I will also present the longer-term plans towards the next-generation neutrino telescope of cubic kilometer size ("KM3NeT") in the Mediterranean. Finally, acoustic detection will be introduced as a possible alternative technique for future detectors of even larger scale.

- Tea and cookies will be served at 16:45 in the lobby.
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels also in the lobby.