

International workshop. Cetacean echolocation and outer space neutrinos:
ethology and physics for an interdisciplinary approach to underwater
bioacoustics and astrophysical particles detection



Contribution ID: 63

Type: **Invited Lecture**

Listening for neutrinos - from astrophysics to the deep sea - Part II

Friday, 18 October 2013 15:20 (50 minutes)

This lecture will discuss both the hardware and software needed to acoustically detect neutrinos and will cover topics such as Hydrophone structure, Analogue to digital converters, Fourier Transforms, matched filtering, spectral analysis and the Hilbert Transform for envelope detection. Although the topics covered are in general very mathematical the talk will be very descriptive and have any examples and illustrations rather than detailed mathematical workings and will be geared towards a general scientific audience.

Presenter: Prof. DANAHER, Sean (Northumbria University)

Session Classification: Astrophysics with acoustics in deep sea