

# **Acoustical methods for the monitoring of the marine environment**

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Acoustic waves are efficient carriers of information on the domain through which they propagate. Especially in sea water acoustics play the role of electromagnetic waves in the atmosphere, and they are extensively used for communication for source and target localization and identification, as well as for general monitoring of the properties of the marine environment.

The presentation summarizes the history of underwater acoustics, give some hints on the theoretical background of acoustic wave propagation in the marine environment, addressing both the forward and inverse problems related to the numerous applications of acoustical oceanography and concludes with some ideas on the development of acoustical observatories for the continuous monitoring of the marine environment.