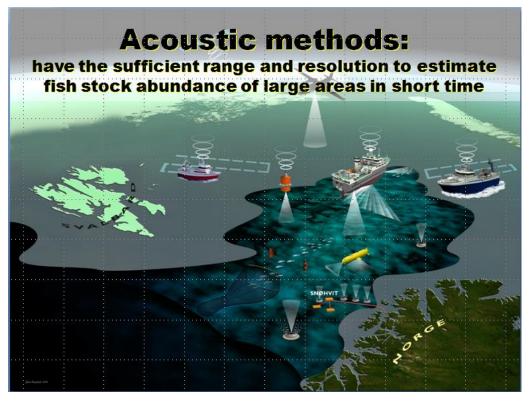


### **Consiglio Nazionale delle Ricerche**

ISMAR - Istituto di Scienze Marine U.O.S. di Ancona Largo Fiera della Pesca, 1 – 60125 Ancona, Italy Tel +39 071 207881 Fax +39 071 55313 segreteria@an.ismar.cnr.it C.F. 80054330586 - P.IVA 02118311006



### Giovedì 21 Luglio 2016 - ore 12 SALA RIUNIONI **SEMINARIO**



# **Dr. Rolf Korneliussen** Rolf Korneliussen is head of research group Marine Ecosystem Acoustics at IMR

## INSTITUTE OF MARINE RESEARCH HAVFORSKNINGSINSTITUTTET

ABSTRACT

Sonars and echosounders are widely used for remote sensing in the marine environment. Technological advances have continually improved the measurement accuracy, allowed more frequencies to be used concurrently, and greater volumes to be sampled acoustically. Inevitably, this has greatly increased the amount of acoustic data to be processed. Acoustic methods are the only methods that have the potential for reliable estimation of fish stock sizes of large areas sufficiently efficient. I describe acoustic methods in general, for the analysis of scatterers at different trophic levels, such as zooplankton, pelagic fish and demersal fish.

### **About IMR**

With a staff of almost 750, the Institute of Marine Research is the Norwegian governmental centre of marine science. Its main task is to provide advice to Norwegian authorities on aquaculture and the ecosystems of the Barents Sea, the Norwegian Sea, the North Sea and the Norwegian coastal zone. About fifty percent of their activities are financed by the Ministry of Trade, Industry and Fisheries.

SEDE ISTITUTO Castello 1364/a 30122 Venezia Tel. +39 041 2404711 Fax +39 041 5204126 segreteria@ismar.cnr.it

Bologna Via P. Gobetti, 101 40129 BO Tel +39 051 6398891 Fax +39 051 6398939 segreteria@bo.ismar.cnr.it

Genova **Via De Marini, 6** 16149 GE Tel +39 010 64751 Fax +39 010 6475400 segreteria@ge.ismar.cnr.it

Lesina Via Pola, 4 71010 FG Tel +39 0882 992702 Fax +39 0882 991352 segreteria@fg.ismar.cnr.it Pozzuolo di Lerici Forte Santa Teresa 19032 SP Tel +39 0187 978300 Fax +39 0187 970585 segreteria@sp.ismar.cnr.it

Trieste Francesco Vercelli Viale Romolo Gessi, 2 34123 TS Tel +39 040 305312 Fax +39 040 308941 segreteria@ts.ismar.cnr.it