

# New Algorithms for Ocean Acoustics

*Joyce McLaughlin*  
**Rensselaer Polytechnic Institute**

## ABSTRACT

Signals propagate over surprisingly long distances in the ocean. To calculate the received signals, one way algorithms for elliptic partial differential equations are used. These can be inaccurate in the presence of backscattering.

In this lecture we discuss a new one way algorithm that gives a highly accurate solution. It's based on the Robin to Dirichlet map.