



RHEEM LAB.

[Sea Surface Measurement by using Microwave Pulse Doppler Radar]

Department of Mechanical and Biofunctional Systems

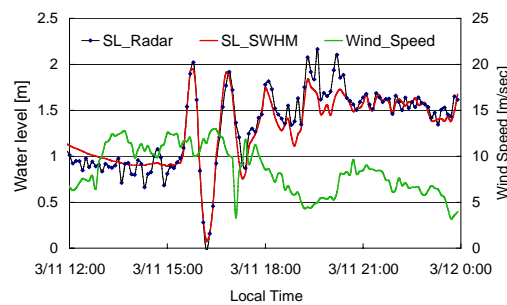
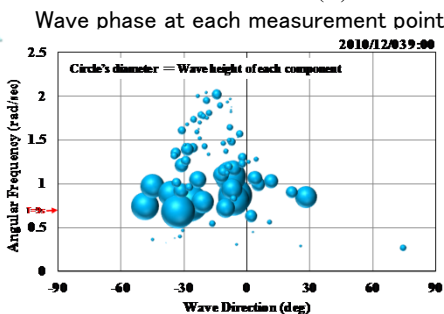
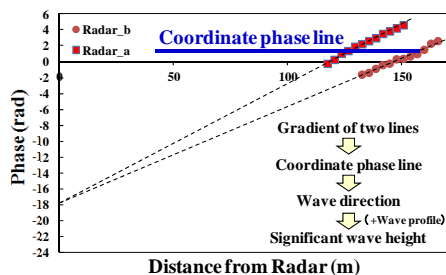
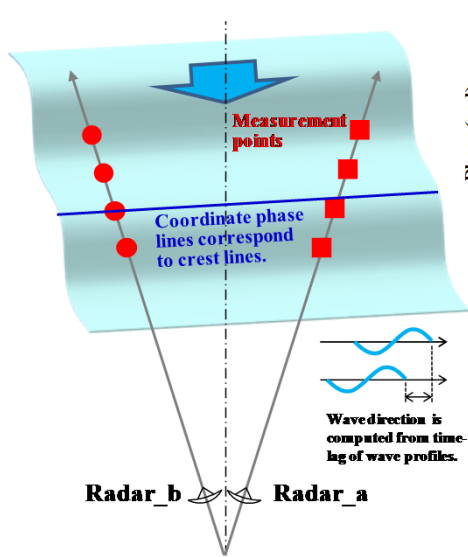
<http://seasat.iis.u-tokyo.ac.jp/rheem/>

Ocean Environmental Engineering

Graduate School of Frontier Sciences, Department of Ocean Technology, Policy, and Environment

Remote Sensing of Sea Surface by Microwave Pulse Doppler Radar

A real-time sea surface wave observation system by using a microwave pulse Doppler radar has been developed. The system measures sea surface waves of multi-measure points simultaneously. Wave direction, period, height and phase of sea surface waves are retrieved. The wave conditions around the measurement site can be predicted in space and time. We have been conducting experiments at off Hiratsuka, Sagami bay.



Time Domain Numerical Simulation of Microwave Backscattering

Simulation techniques have been developed to estimate microwave backscattering from the sea surface numerically. The simulation, which can be a substitute of water tank experiments, is applied to evaluate algorithms of sea surface measurements with a Doppler radar and a SAR.

