

**P-150-2**

**WaMoS II - X-band radar: from spectral to single wave detection**

Katrin Hessner , Konstanze Reichert, and Jürgen Dittmer

OceanWaveS GmbH, Lüneburg, Germany

E-mail: reichert@oceanwaves.de

X-band radars have been used in recent years to image ocean surface waves. The present poster presents the wave monitoring system WaMoS II based on a standard marine X-Band radar generally used for navigation and ship traffic control. This system has been developed 25 years ago and is now commercially available for real time wave measurements. It operates from fixed and moving platforms in deep as well as in coastal waters and allows obtaining directional spectral wave parameters, such as the integrated sea state parameters significant wave height, peak wave period and peak wave direction.

Within the EU funded project MaxWave, which focuses on extreme wave events, and the national funded project SinSee, WaMoS II has been used to study the occurrence and properties of extreme waves, and to develop new algorithms to infer sea surface elevation maps from nautical radar images sequences. First results of the inferred sea surface elevation maps are presented. The integration potential of this type of data for offshore and ship applications will be discussed.