



## **Survey of the Physics of Ocean waves from global to regionalscales.**

P.A.E.M. Janssen  
ECMWF, Shinfield Park, Reading, UK

In this talk I would like to discuss the Physics of ocean waves, which includes the generation of ocean waves by wind (and the feedback of the growing ocean waves on the atmospheric circulation) four-wave interactions and dissipation by wave breaking. This is followed by a brief discussion on the present-day quality of operational wave forecasting results, while also new applications such as freak wave forecasting and the interaction of ocean waves and ocean circulation are presented.