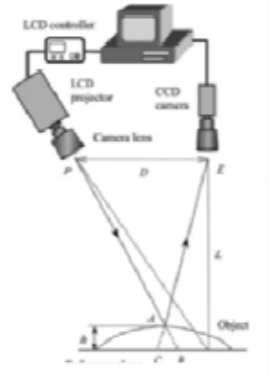
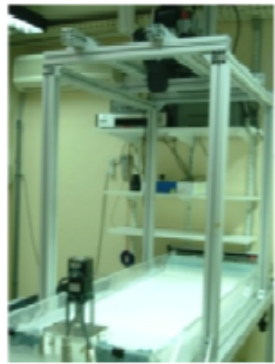


Post Doctoral Proposal: Extreme amplitude water waves on variable bathymetry

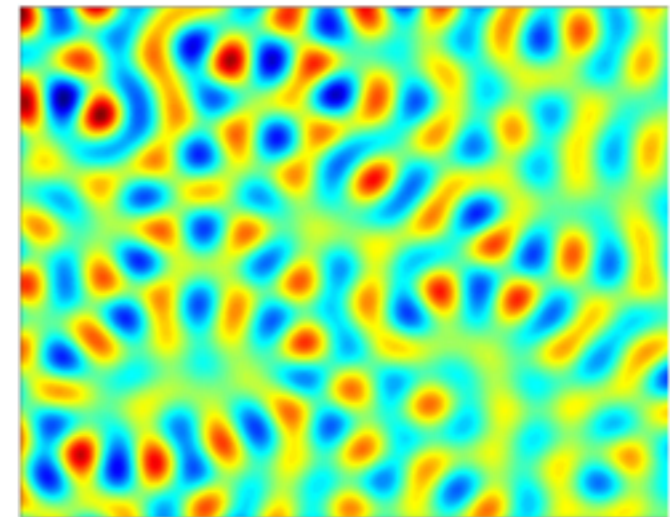


Among the mechanisms for extreme events observed in the sea (rogue or freak waves), there is a linear mechanism: refraction effect due to a variable bathymetry. Recently, experiments in the context of electromagnetic waves have shown that particular statistical distributions of the inhomogeneities or of the wave function can lead to branching flows and extreme events. We will test these mechanisms in our experiments of water waves both in the linear and non linear regime.

The post-doc concerns experimental and theoretical study of the linear and non linear propagation of water waves.

Our group has developed an optical technique that measures the surface elevation instantaneously in laboratory experiments of water waves. This technique characterizes very accurately the spatio-temporal behavior of the surface waves.

Public Grant from the Agence Nationale de la Recherche,
Location: ESPCI, 10 rue Vauquelin, Paris, France



Typical measurement of water waves

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