

# **The DiMe project: characterization of the wave breaking characteristics of extreme sea states for the design of Marine Renewable Energy converters**

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## **Abstract**

The DiMe project aims at providing to the Marine Renewable Energy industries accurate information regarding the characteristics of breaking waves with a focus on the statistics of these events. This information is expected to help the industry to improve the design of MRE systems including floating offshore wind turbines in order to guarantee their survivability in extreme conditions and reduce the Capital costs of these marine structures. Efforts will be made on the implementation of wave breaking in phase resolving and phase averaged spectral models to improve wave forecasts and hindcasts of extreme sea states. These developments will be supported by observations of wave breaking statistics obtain in the frame of the project. This talk will focus on an ongoing experiment held from the La Jument lighthouse dedicated to the observations of large breaking waves in deep to intermediate water depth. This experiment relies in particular on a stereo-video system, an X-band radar that will be used to capture the statistics of large breaking waves in storm seas.