

Abstract Submitted
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Reconstruction of arbitrary surface wave fields by refraction global method in a wave tank¹ HEYNERT GARCIA, ANDREI LUDU, Embry-Riddle Aeronautical University — We use a new photographic procedure and design to construct reliable system for measurement and analysis of various surface water waves in a wave tank, including rogue and tsunami-like waves. The image of a grid placed at the bottom of the tank (3 feet maximum depth) is deformed by the surface waves and recorded on one or two cameras placed above the water. The measurement of the height and slope of the surface waves is determined by inverse refraction calculations plus the calibration information at four grouped points from capacitive level gauges.

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