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**Reconstruction of a energy wave spectrum using a non-intrusive technique** DIANA VARGAS, ADOLFO LUGO, EDGAR MENDOZA, RODOLFO SILVA, Universidad Nacional Autonoma de Mexico — For studies taken in a wave flume, it is frequent to use wave gauges to measure directly the free surface fluctuations. Sometimes these gauges can interfere the measures because this probes act as obstacles to water. Therefore we designed a non intrusive technique using a bubble curtain. In this work we pretend to reconstruct the energy wave spectrum of regular and irregular waves, generated in a wave flume, assuming linear and non linear wave theory by analyzing the time series of the bubbles velocity field given with the aid of PIV.

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