SEMINARIO DE INVESTIGACIÓN EN OLEAJE

30 Noviembre 2016 14:30 hrs, Sala Musicámara, Centro Extensión UV, Errázuriz 1108, Valparaíso

Este seminario se realiza en el marco de la visita de los investigadores de la Universidades de Bath y Newcastle por el proyecto WASH (WAves into SHallow water) para realizar mediciones en el muelle Oxiquim en Quintero en colaboración con la Universidad de Valparaíso, Universidad Santa María y Universidad Católica. Se presentarán diversos temas de investigación sobre oleaje.

El evento es de entrada liberada, pero con cupos limitados, la asistencia se debe confirmar al correo electrónico ANNE.QUAAS@alumnos.uv.cl .

Programa

14:30 – Dr. Erwin Bergsma, U. Bath – Detailed measurements of waves in shallow water at the Oxiquim pier, Quintero, Chile.

This talk focuses on the currently obtained highly detailed measurements of individual waves at the Quintero Oxiquim pier. The presentation starts with an overview about the context of the

measurements and in particular the reason why to measure waves at such high spatio-temporal resolution. Subsequently, more technical processes are explained such as how these measurements are carried out and what valuable information one on obtain from them.

14: 55 - Dr. Erwin Bergsma, U. Bath - Depth inversion through video imagery.

This talk focuses on a state of the art method for depth inversion through video imagery in the near shore zone. The talk covers Dr. Bergsma recently finished PhD-project on covering recent challenges and future applications of spectral depth inversion techniques. In addition, the presentation shows the impact of mega storm event on coastal erosion and subsequent recovery observed with the video imagery.

15:20 - Kevin Martins, U. Bath - Wave transformation in the surf zone using LiDAR technology .

The surf zone is a very energetic environment, where it can be complicated to deploy in-situ sensors. Thanks to the spatial and temporal resolution at which they operate, Terrestrial Laser Scanners (TLS) constitute a very interesting alternative and promising tool to measure breaking waves. Using various datasets of TLS, I developed methods to extract and track individual wave properties in the surf zone, showing for instance that wave reflection is responsible for intrawave variabilities of wave height along the wave propagation course. During the presentation, I will describe these methods and their potential application for the WASH Chilean project.

15:45 - Receso

16:00 - José Beyá, U Valparaíso –The Chilean Wave Atlas Project

The main results of the Chilean Wave Atlas project will be presented. This includes Wavewatch III model calibration, correction of systematic errors, comparison with other databases, wave data analysis, uncertainty, wave forecast, future trends and predictions.

16:25 - Dr. Hannah Power, U. Newcastle - Linking the surf and swash zones

The surf and swash zones are key regions on the beach controlling sediment transport, beach erosion, and coastal hazards such as wave run-up and overtopping. Frequently, these two zones are treated as two distinct area for investigation, however, they are inextricably linked. The surf zone drives the dynamics of the swash zone and the swash zone can influence the surf zone. This presentation describes research that aims to better understand how these two zones are linked and to describe the conditions at the boundary of the two zones.

16:50 - Harold Díaz, Tesista U Santa María - Towards quantifying wave breaking dissipation in 2D from remote sensing data.

17:15 - Roberto Agredano Martín, U. Católica - Reñaca beach morphodynamics under changes in deep water wave climate.

17:40 – Mauricio Molina U. Valparaíso – Evolution of Viña del Mar and Valparaíso beaches.

18:05 - Cierre