



## **Field survey and preliminary modeling of the 2010 Chilean tsunami in the Marquesas Islands, French Polynesia**

Dominique Reymond (1), O. Hyvernaud (1), E. A. Okal (2), S. Allgeyer (3,4), A. Jamelot (4), and H. Hébert (4)

(1) CEA/DASE/LDG, BP 640, 98713, Papeete, Tahiti, Polynésie Française, (2) Dept. Earth Planet. Sci., Northwestern University, Evanston, IL, USA, (3) Laboratoire de Géologie, ENS, 75230 Paris Cedex 5, France, (4) CEA, DAM, DIF, 91297 Arpajon, France

The 2010 Chilean tsunami impacted French Polynesia with amplitudes unparalleled since the great 1960 event. Preliminary reports indicate run-ups of up to 4 m on Nuku Hiva, Marquesas.

All coastal areas in Polynesia were evacuated starting 03:00 Tahiti time (GMT-10), three to five hours ahead of the arrival of the first waves, thus preventing any casualties.

We will present the results of field surveys achieved during the second week in March 2010. Preliminary simulations of the inundation will be also presented at selected locations on Polynesian islands, to compare with observed run-up values and available tsunami heights measured on tide gauges.