



Scenarios of combined river and sea water inundation along the Adriatic Coast

Barbara Zanuttigh, Luisa Perini, and Paolo Mazzoli

Alma Mater Studiorum - Università di Bologna, DICAM, Bologna, Italy (barbara.zanuttigh@unibo.it)

The coasts of the Emilia Romagna region, Italy, are located in low-lying areas of the Northern Adriatic Sea, characterized by a high anthropogenic subsidence and recently damaged by coastal flooding.

The objective of this research is to analyse coastal flooding hazard in the specific case of combined effects due to the river and the sea.

Simulations are carried out with MIKE 21 FM, on the basis of detailed LIDAR surveys in the area. The selection of the HD model, of the area to be simulated, of the proper boundary conditions and mesh resolution has to account for model limitations, result accuracy and computational effort.

The contribution will describe these key issues and show flooding in time at Lido di Savio for combined sea-river scenarios in the mid and long term.