Supplementary Materials

Offshore Geological Hazards: Charting the Course of Progress and Future Directions

Figure Caption for Movie

Movie presenting the numerical simulation of the tsunami wave evolution from its generation to its coastal impact in the Gulf of Cadiz. The Tsunami-HySEA model was used [1]. The seismic source considered is a combination of the Horseshoe and Marques de Pombal faults (Baptista, M.A; per. Comm.; [2]). The tsunamigenic fault composed by those two segments were described by the Okada's parameters ([3], Table S1 in Supplementary Materials), which are considered by the Tsunami-HySEA model in the computation of the initial seafloor deformation. The bathymetry comes from EMODnet source (https://www.emodnet-bathymetry.eu/; accessed on 30 August 2020).

Table in Supplementary Materials

Table S1. Okada's parameters [3] describing the two fault segments involving of the Horseshoe and Marques de Pombal faults as source for the tsunami modelling.

Segment Fault	East Long	North Lat	Depth (km)	L (km)	W (km)	Strike	Dip	Rake	Slip	Mw
Marqués de Pombal	10.25	36.64	5	120.0	80.0	20.0	35.0	90.0	12	8.8
Horseshoe	10.32	35.92	5	170.0	100.0	42.0	35.0	90	14	

References

1. Macías, J.; Castro, M.J.; Escalante, C. Performance assessment of the Tsunami-HySEA model for NTHMP tsunami currents benchmarking. Laboratory data. *Coast. Engin.* **2020**, *158*, 103667, doi:10.1016/j.ocemod.2020.101645.
2. Omira, R.; Baptista, M.A.; Miranda, J.M. Evaluating tsunami impact on the Gulf of Cadiz coast (Northeast Atlantic). *Pure Appl. Geophys.* **2011**, *168*, 1033–1043, doi:10.1007/s00024-010-0217-7.
3. Okada, Y. Internal deformation due to shear and tensile faults in a half-space. *Bull. Seismolo. Soc. America* **1992**, *82*, 1018–1040.