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## Geomorphology and tsunamigenesis of blocky MTDs on collisional tectonic settings: Insights from Southwest Iberia and the Hikurangi Margin (New Zealand)

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Submarine mass-movements are a major hazard on continental margins, particularly on collisional tectonic settings where recurrent earthquakes may trigger catastrophic collapses. Associated mass-transport deposits (MTDs) are typically heterogeneous, often characterised by a mixture of allochthonous slope lithologies transported to the abyssal depths, being further mixed with autochthonous basin sediments. Examples of such complex MTDs on thrust-controlled slopes are the North Gorrige Avalanche on the flank of the Gorrige Ridge, located on the Southwest Iberian Margin (NE Atlantic), and the Ruatoria MTD on the Hikurangi Subduction Margin, offshore New Zealand. Both MTDs present morphological similarities, such as a large evacuation area with significant height differences (between 2500 m to 3000 m for both cases), numerous blocky debris still observable on the seafloor despite the post-collapse burial and marked deformation of basin sediments over large areas. With a volume of circa 4500 Km<sup>3</sup> and covering 9850 km<sup>2</sup>, the Ruatoria is particularly impressive and comprises one of the largest MTDs in the world. A geomorphological analysis is complemented by models to assess the tsunamigenesis of such impressive collapses and the hazards for margins across the oceans where they occur.

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