



Analysis of the tide-gauge records in New Zealand

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We analyze the sea level change along the coast of New Zealand using the tide gauge data. In particular, we investigate a relative sea level change and its acceleration, and principal periodical variations due to various environmental factors. The numerical analysis is conducted at 13 tide-gauge stations in Wellington, Bluff, Tauranga, Taranaki, Nelson, Chatham, Marsden Point, Jackson, Scott Base, Timaru, Lyttelton, Napier, and Dunedin. The tide-gauge data at these stations are provided by the University of Hawaii Sea Level Center (UHSLC) over various time periods with 1 hour data sampling interval.