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TITLE: Climate-change-driven accelerated sea-level rise detected in the altimeter era

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ABSTRACT:

Using a 25-y time series of precision satellite altimeter data from TOPEX/Poseidon, Jason-1, Jason-2, and Jason-3, we estimate the climate-change-driven acceleration of global mean sea level over the last 25 y to be 0.084 ± 0.025 mm/y². Coupled with the average climate-change-driven rate of sea level rise over these same 25 y of 2.9 mm/y, simple extrapolation of the quadratic implies global mean sea level could rise 65 ± 12 cm by 2100 compared with 2005, roughly in agreement with the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (AR5) model projections.

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