

# Late Holocene Coastal Cliff Retreat Rate in Del Mar, California

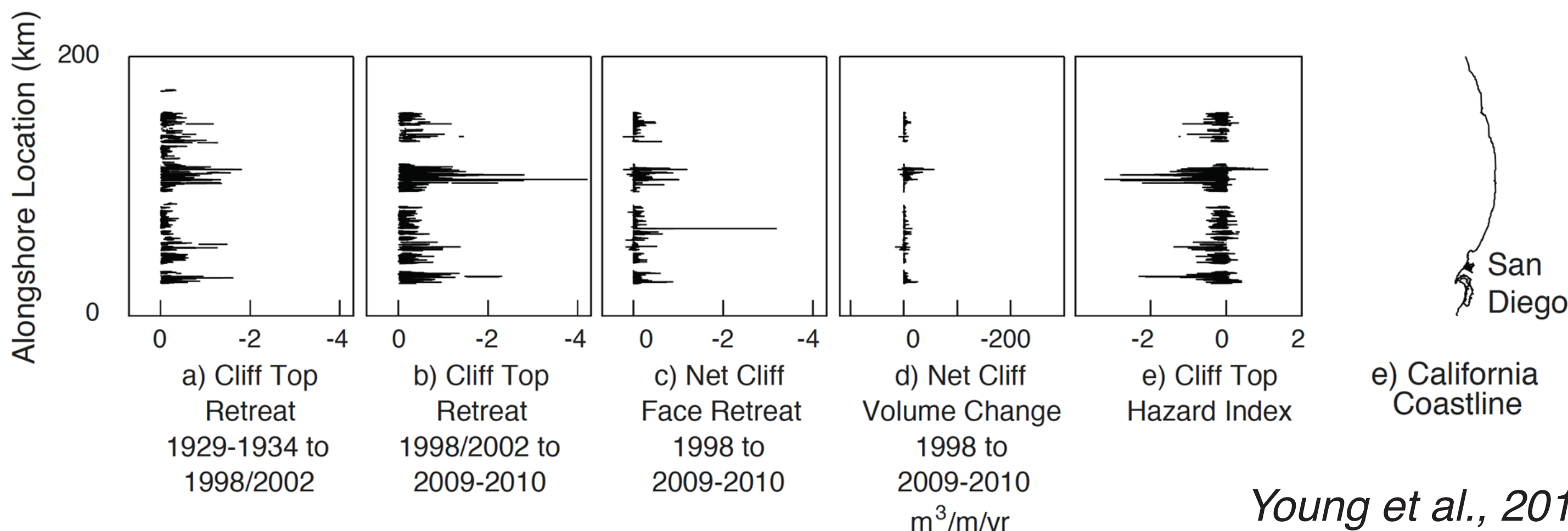
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Revealed from shore platform <sup>10</sup>Be concentrations and numerical modeling



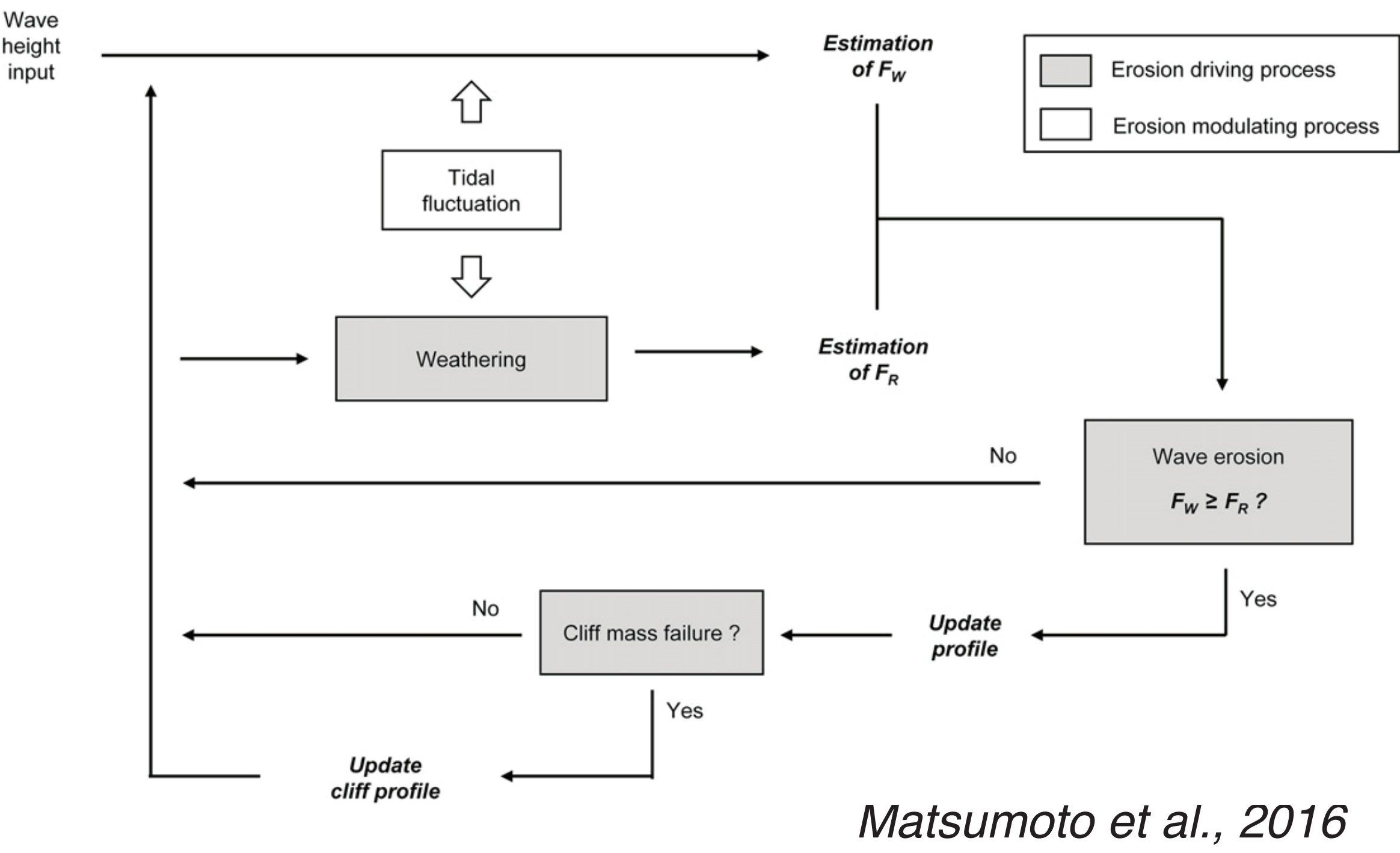
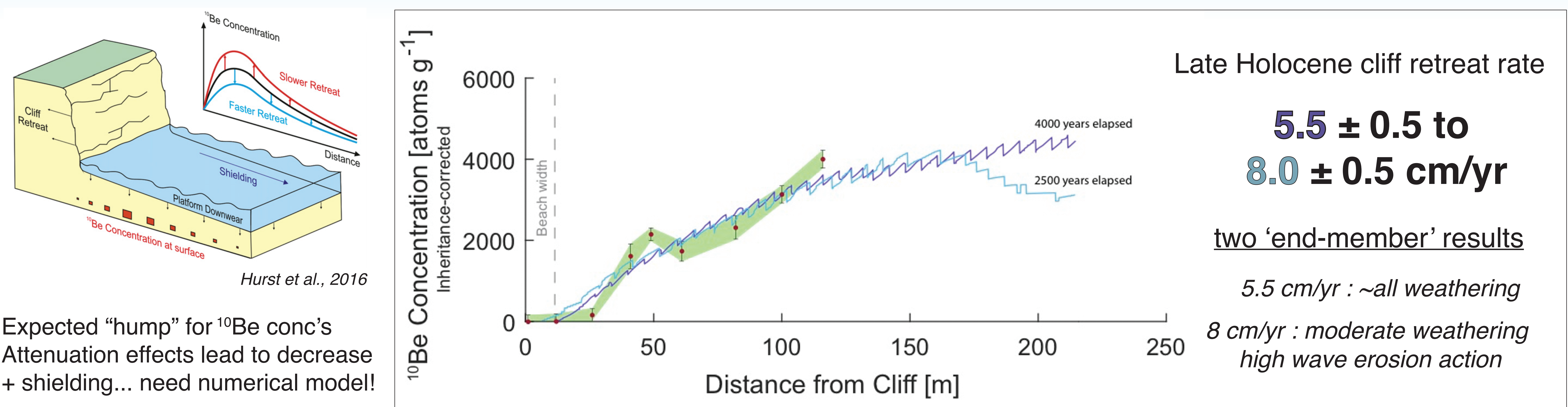
## Motivation



Historical Retreat Rate: **5-20 mm/yr** in Del Mar

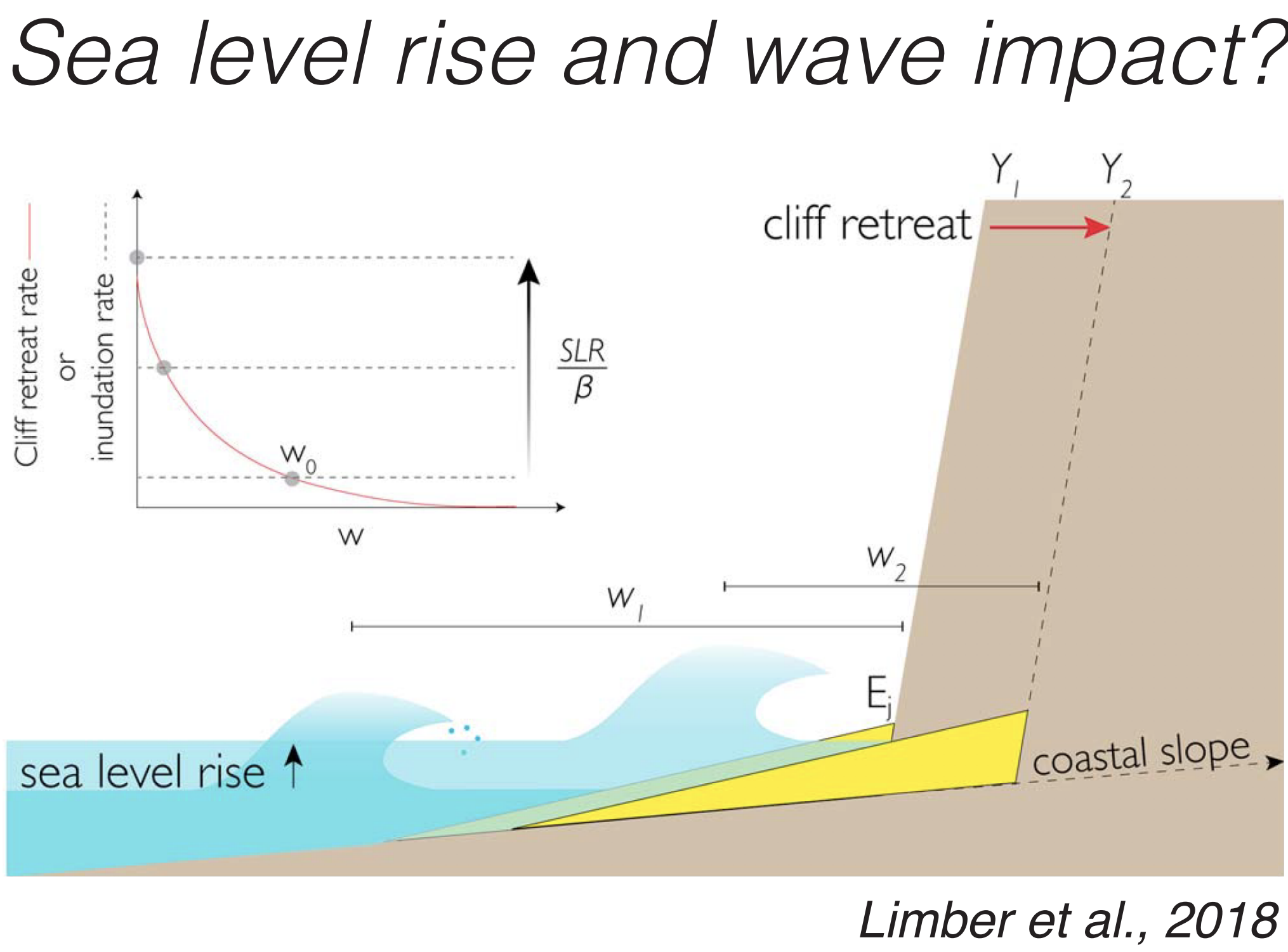
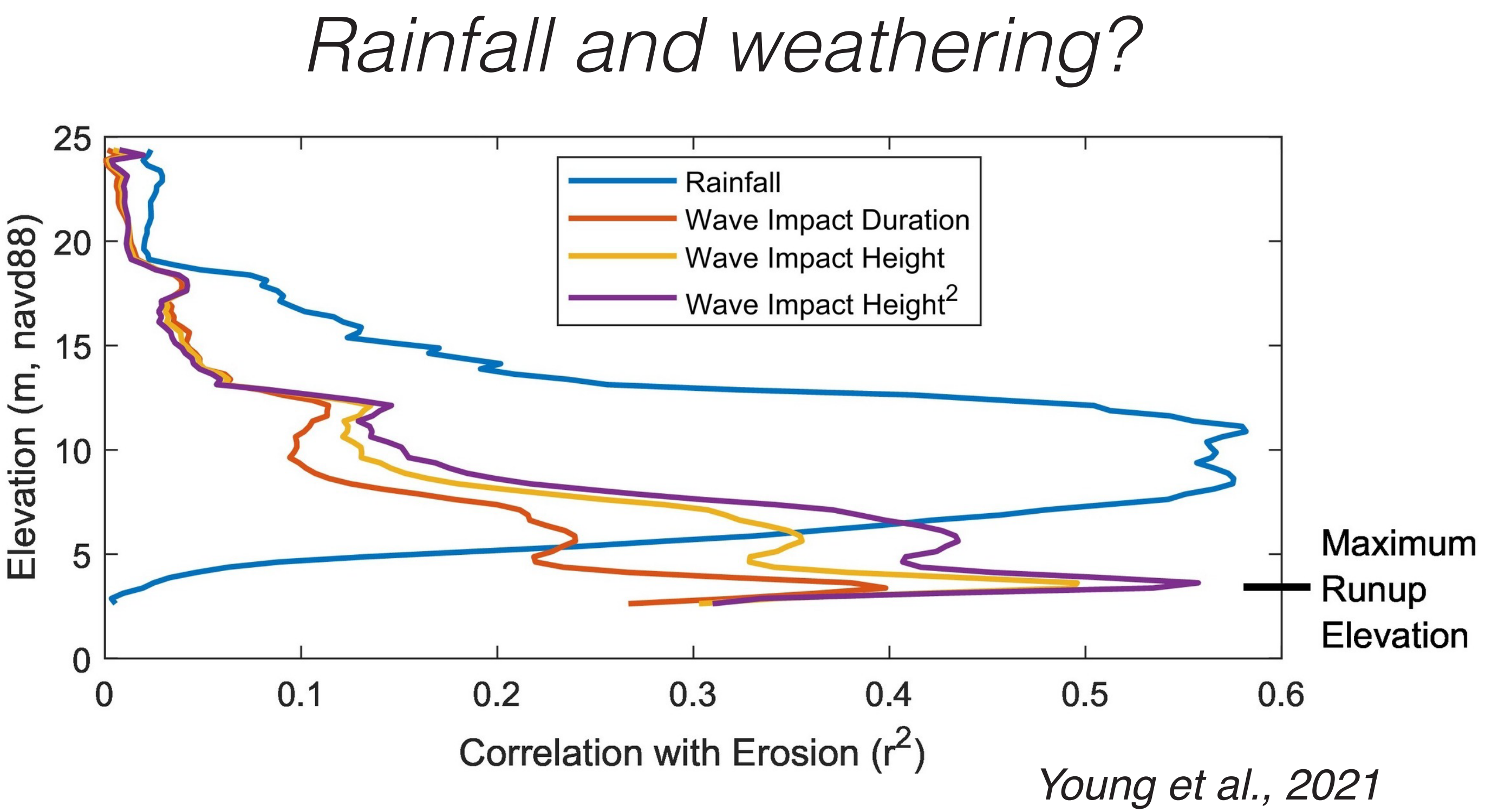


## Cosmo - Numerical Model - Results



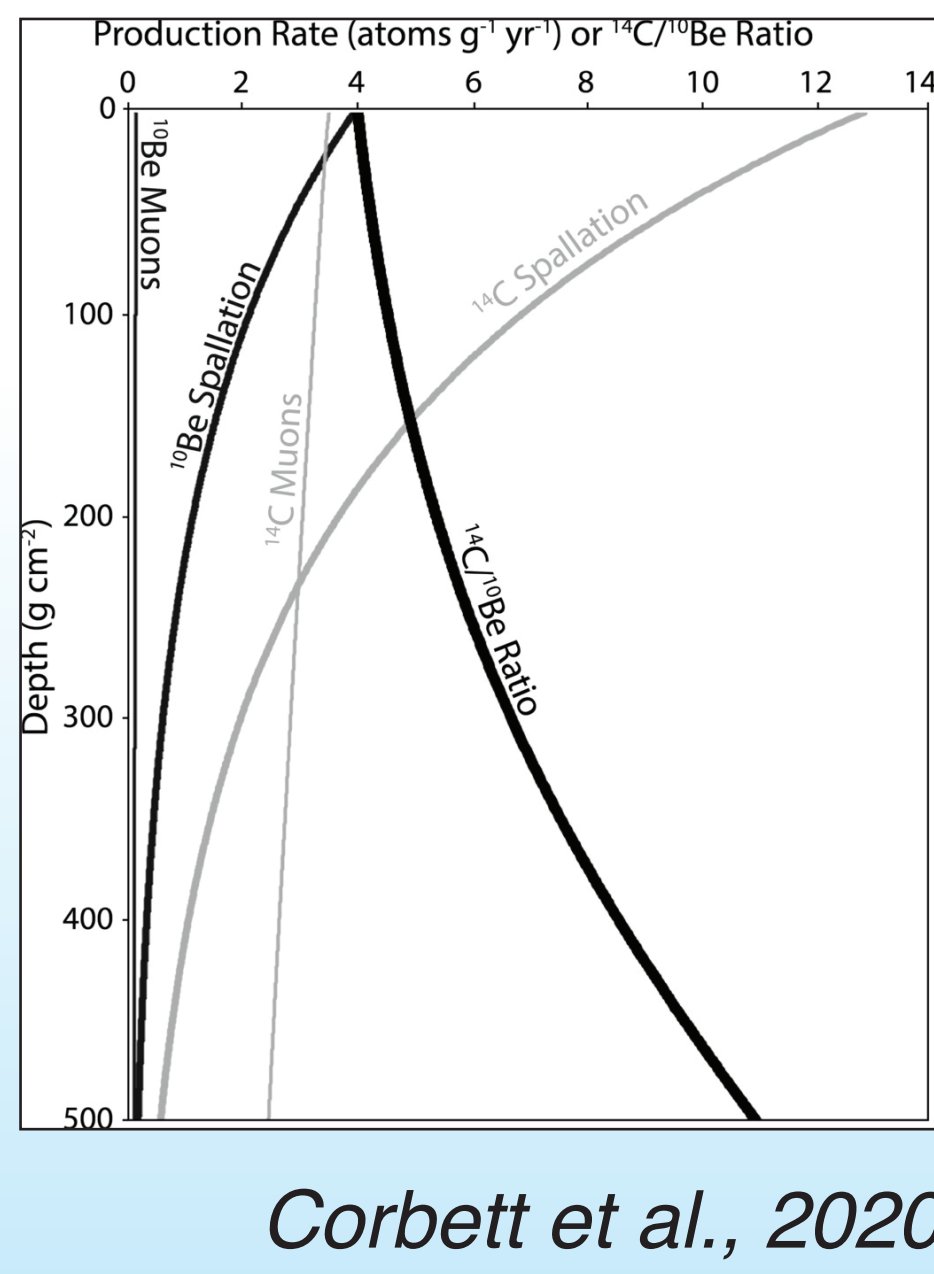
Explore relative effects of sea level rise, subtidal weathering, lithological resistance, and wave erosion efficacy with model

## What's driving this apparent rate increase?



## Future Work

Refine modeling with Markov Chain Monte Carlo  
Pair <sup>10</sup>Be with in situ-produced <sup>14</sup>C concentrations



If successful, do a similar study in other areas (e.g. Santa Cruz) where <sup>10</sup>Be won't work!

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