

Computational Geophysics: Garrett Apuzen-Ito



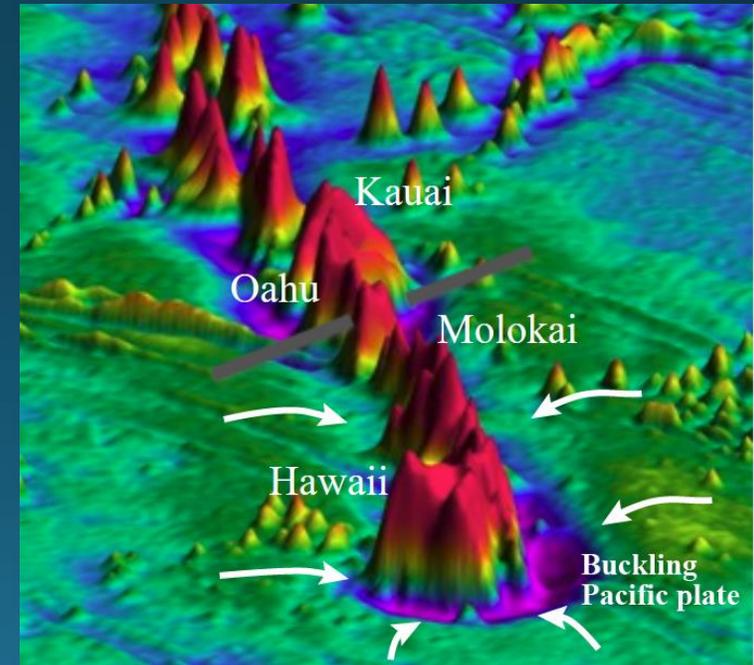
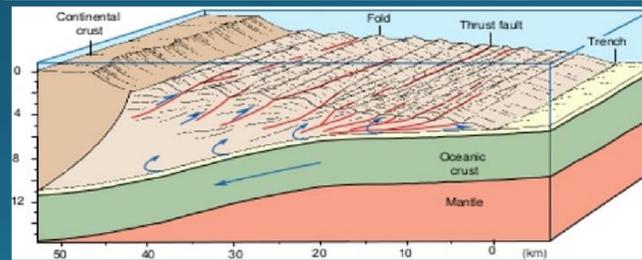
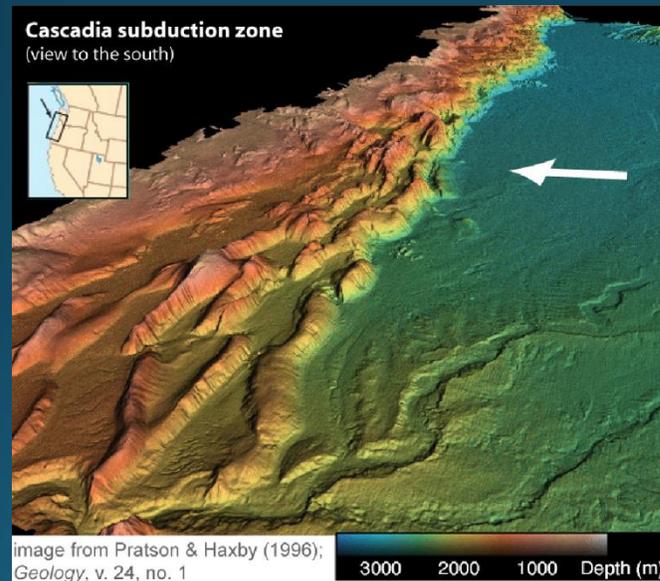
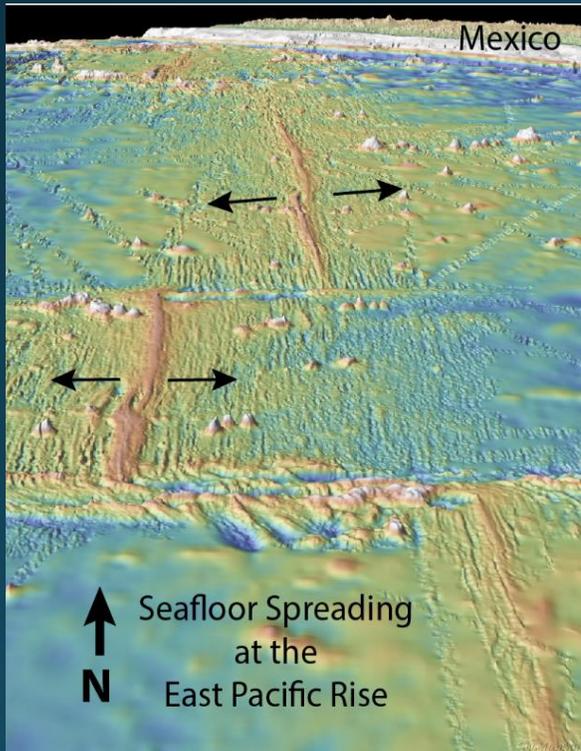
My group uses computer simulations of solid and fluid mechanics to study mantle convection and melt generation beneath mid-ocean ridges as well as hotspot island chains like Hawai'i. Recent studies include computational geophysical studies of lithosphere deformation and faulting at both divergent and convergent plate boundaries. Students who work with me have strengths in math and physics and are interested in computer modeling.

Potential REU Projects

1) Analyze high-resolution maps of seafloor topography to measure faults and magmatism where seafloor is spreading and being created at mid-ocean ridges.

2) Computer models of the growth and faulting of mountain belts and submarine accretionary wedges where tectonic plates collide ([see movie on YouTube](#))

3) Computer simulations of the buckling and fracturing of the Pacific tectonic plate beneath the Hawaiian islands.



modified from Zhong & Watts [2010]