

Tom Hearn, Engineering Physics External Advisory Board meeting, April 12 & 13, 2019

Major Projects

- Hearn, Thomas M, and James F. Ni, "Collaborative Research: The Burma Arc from Collision Kinematics to Subduction Tectonics as Observed from a Passive seismic experiment (BACKSTOP)", National Science Foundation. We are trying again for the fourth time to get funding for this.
- Hearn, Thomas M, Nisath Ranasinghe, "Seismic reflections from train noise. A preliminary study to use train noise to image the Earth. This study is spurred by an excellent set of train noise data with which to work, but we've got to figure out how to do it first. I was working with my graduate student, Nisath Ranasinghe, on this, but he has graduated.
- Hearn, Thomas M, "Seismic attenuation beneath Japan from amplitude data", This is an ongoing project I began when I was on sabbatical. It uses amplitude data recorded by the Japan seismic network to image attenuation beneath Japan.
- Hearn, Thomas M, Rajiv Ranasinghe, "Seismic period measurements and their implications for source and attenuation spectra." This is a project with Rajiv Ranasinghe (previous Grad. student) to explain classic seismological measurements of seismic period in terms of seismic source and attenuation models. Rajiv has graduated so I need to finish and write this up,

Papers and Presentations

- Ranasinghe, N. R., Gallegos, A., Hearn, T. M., Ni, J. F., Sandvol, E. (2017). Frequency dependent Lg attenuation in northeast China and its implications. *Geophysical Journal International*, 212(3), 2131–2142.
- Hearn, T. M., Ni, J. F., Haiyang, H., Sandvol, E., Chen, Y. Depth dependent Pn velocities and configuration of Indian and Asian lithosphere beneath the Tibetan Plateau. *Geophysical Journal International*, 46. Under minor revision.

Support

- Acquisition of a High Performance Computing Cluster for the Geophysics Group at New Mexico State University," NSF, \$75,000.00, Description: NSF-IAR Infrastructure Proposal, for the purchase of a computing cluster for the geophysics group at NMSU.

Departmental Service

- Engineering Physics Advisor
Engineering Physics Committee

Teaching

- Physics 150, Introductory Computational Physics, Fall semester 2016, 2018, 2019
Physics 451, Intermediate Mechanics, Fall semester 2018
Physics 215, Engineering Physics I, Spring semester 2018, 2019
Physics 211L/215L, Introductory Physics Laboratories, Spring semester 2018, 2019
Physics 305V, Search for Water in the Solar System, Fall semester 2017