**Geography 507: Seminar 4**

**Seismology applications: From megathrust earthquakes to flowing water**

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This week’s seminar speaker was Sue Bilek who is a currently at OSU on a sabbatical from New Mexico Tech. I felt that her presentation style was very clear and good but some of the topics were in areas I need to strengthen my background in. I felt that one of the main takeaways was utilizing principles of seismology to look at a range of different problems. Another main takeaway was that I felt her research was utilizing smaller earthquake related events to look at megathrust events. Recently her work seems to be focusing on looking at the Cascadia zone and one of the issues they face is not having enough sensors spread out over the seabed to detect seismic activity. Her research also utilized the earthquake that occurred in Nicaragua during 1992.

I am working to start a graduate program in CEOAS after gaining a master’s degree from the Department of Nuclear Science and Engineering. What stood out about her research was the similarities to research in the NSE Department where it can be a struggle to gain data related to effects from large events like reactor meltdowns and nuclear weapons.

The methods they used seemed to involve a lot of sensors (that I know little about) and managing wave form quality. In my research I utilized Spectroscopy to determine energy spectrum about various radioactive isotopes. In a lab setting quality was not an issue I faced but rather struggled more in writing algorithms to model this behavior. I plan to email her and if she is not too busy meet one on one to pursue some questions that I had.