



**DEPARTMENT OF GEOSCIENCES  
SENIOR THESIS  
CLASS OF 2013**

---

- Andrew S. Budnick** “Phosphorus Limitation and the Reduction of the Carbon Fertilization Effect in Tropical Ecosystems”  
*D. Medvigy / D. Sigman*
- Nicholas M. Burton** “Temperature-Dependent Methanotrophy in High Arctic Permafrost: Implications for Global Warming”  
*T. C. Onstott / G. Keller*
- Christine Y. Chen** “Lake Bonneville’s Tilted Shorelines Revisited: Implications for Late Pleistocene Climate”  
*A. Maloof / J. Tromp*
- Gabriel L. Eggers** “A Regionalized Maximum-Likelihood Estimation of the Spatial Structure of Venusian Topography”  
*F. Simons / T. Duffy*
- Jeffrey D. Gronewold** “The Implications of Mafic Enclaves on Magmatic Differentiation and Pluton Emplacement: Geochronological And Geochemical Insights from the Bergell Intrusion, N. Italy”  
*B. Schoene / A. Rubin*
- Cynthia M. Kanno** “A Novel Apatite-Based Sorbent for Defluoridation: Synthesis and Sorption Characteristics of Nano-Micro Crystalline Apatite on Limestone”  
*S. Myneni / F. Morel*
- Nathan P. Mathabane** “The Sensitivity of Western US Forest Carbon Budgets to Topography, Climate, and Disturbance Regimes”  
*D. Medvigy / S. Fueglistaler*
- Lydia R. Rudnick** “Predicting Potential Geographic Distribution of *Siganus Luridus* and *Siganus Rivulatus*, Two Invasive Fish Species In the Mediterranean Sea”  
*J. Sarmiento / G. Philander*
- Elizabeth M. Shoenfelt** “The Nature of Reactive Thiols on Bacterial Cell Envelopes And their Reactivity with Aqueous  $Hg^{2+}$ ”  
*S. Myneni / F. Morel*
- Emily V. Trost** “High-Stress Conditions in Early Paleocene Benthic Foraminifera: Evidence from NW Atlantic ODP Site 1050C”  
*G. Keller / J. Higgins*