PRINCETON UNIVERSITY
DEPARTMENT OF GEOSCIENCES
SENIOR THESIS (Class of ’15)

Eric D. Bolton
“Parameterizing the KoK Effect: How Light Inhibition of Respiration Affects Ecosystem Carbon Budget Predictions”
* D. Medvigy / M. Bender

Leticia M. Bombieri
“The Importance of Volcanic Rocks and Thin Sediments on Thermal Gradient”
* T. Onstott / F. Meggers

Joan L. Cannon
“Studying Past Atmospheric CO₂ Concentrations Using Mass Spectrometer Analysis of Foraminifera-Bound Organic Matter”
* D. Sigman / M. Bender

Tiffany W. Cheung
“A Mechanistic Study of CO₂ Fixation In Marine Diatoms: The Effects of Diel Cycling, Temperature & Light Intensity On Thalassiosira weissflogii”
* F. Morel / D. Sigman

Preston C. Kemeny
“Seasonality in the Antarctic Ocean: Late Summer Nitrate Isotope Measurements from the Pacific Sector and A Seasonal Model of the Upper Water Column”
* D. Sigman / J. Sarmiento

Trevor D. Klee
“Calculating Mass Balance Per Degree for the Aleutian Crust Using a Novel Method”
* B. Schoene / J. Higgins

Sean P. McIntee
“The Concentration and Isotopic Composition of Nitrate In the Water Column Along a Cross-Basin Transect of the North Atlantic Ocean”
* D. Sigman / B. Ward

Yuem Park
“Constraining Deformation in the Skymo Lake Area of the North Cascades, WA: Implications for the Rapid Exhumation of Arc Middle Crust Along Strike-Slip Fault Systems”
* B. Schoene / A. Maloof

*Seniors from other departments working in geosciences
Martin Wolf (CBE)
“No Nitrification, No NO₃? The Importance of Nitrification in The Epipelagic North Atlantic”
* B. Ward / J. Benziger

Natalie Saenz (CHM)
“Stable isotope analysis of sunflower leaf respiration: the metabolic origin of the KoK Effect”
* M. Bender