

Nicolas M. Roberts
PhD Candidate, UW Madison

Education

- **Current:** Ph.D. Candidate (dissertator status) in structural geology at University of Wisconsin—Madison (Advisor: Basil Tikoff)
 - *Understanding dome-and-keel kinematics in the Paleoproterozoic: A structural investigation of the Mount Edgar and Corunna Downs granitic complexes, East Pilbara Craton, Western Australia.*
- B.A. in Geology, 2013, Carleton College, Minnesota (GPA: 3.87)

Teaching Experience

2018:

- Fall: Teaching Assistant, *Mineralogy*, UW Madison
- Summer and Fall: Mentorship of two undergraduate senior theses, including 6 weeks of fieldwork
- Spring: Teaching Assistant, *Structural Geology*, UW Madison

2017:

- Spring: Teaching Assistant, *Structural Geology*, UW Madison

2016:

- Spring: Teaching Assistant, 10-week field course *Geology in New Zealand Seminar*, Carleton College

2015:

- Spring: Teaching Assistant, *Structural Geology*, UW Madison

2014:

- Fall: Teaching Assistant, *Introduction to Scientific Thought*, UW Madison

2011-2013:

- Served as an undergraduate TA at Carleton College for six trimesters, including 3 terms for *Introduction to Chemistry*, 1 term for *Tectonics*, 1 term for *Introduction to Geology*, and 1 term for *Petrology*

Field Experience

2018:

- Fieldwork: Led a 3.5-month field season in Western Australia, including 6 weeks of structural mapping with two undergraduate students from UW Madison (both students continue research for the 2018-2019 academic year)

2017:

- Field Trip: 19-day UW-Madison graduate student field trip, *Volcanology, Sedimentology, and Structures of the Andes*, Chile and Argentina (led by Profs. Bradley Singer and Shanan Peters)
- Field Trip: 7-day Specialist Group in Tectonics and Structural Geology pre-conference fieldtrip, *A transect through the Albany-Fraser orogen*, Western Australia (Led by the Geological Survey of Western Australia)

2016:

- Fieldwork: Led a 2.5-month field season in Western Australia, including 4 weeks collecting samples with an undergraduate from Carleton College

2015:

- Fieldwork: Participated in a 2-month field season in Western Australia
- Field Trip: 12-day graduate student field trip, *Structural Geology of the Aegean Islands*, Greece (led by Profs. Basil Tikoff and Vasileios Chatzaras)

2014:

- Fieldwork: Spent 1 week as field Assistant for a PhD structural geology student studying shear zones in the Sierra Nevada
- Field Trip: Weeklong UW-Madison graduate student fieldtrip, *Accretionary Wedge Processes*, San Juan Islands, WA and Victoria Island, BC (led by Profs. Laurel Goodwin and Harold Tobin)

2013:

- Field Course: Mapped Painted Canyon, Southern California as part of *Structural Geology* at Carleton College

2012:

- Fieldwork: Undergraduate Research Assistant in southwestern Alaska with Profs. Cam Davidson (Carleton College) and John Garver (Union College) and continued research for the 2012-13 academic year
- Field Course: Participated in a 10-week field geology course, *Geology in New Zealand Seminar*, Carleton College

Other Appointments and Awards

2018:

- Spring: Awarded a Wisconsin Alumni Research Fund Grant (\$21,000, PI: Tikoff) to fund the 2018 field season

2017:

- Fall: Research Assistant, UW Madison

2016:

- Fall: Research Assistant, UW Madison
- Geological Society of America Research Grant *Outstanding Mention* (Full amount -- \$2500)
- NSF Graduate Research Fellowship *Honorable Mention*

2015:

- Geological Society of America Research Grant (Second Tier -- \$1875)
- Fall: Research Assistant, UW Madison
- NSF Graduate Research Fellowship *Honorable Mention*

2014:

- Laboratory Assistant under Prof. Umberto Cordani, University of São Paulo, Brazil

2013:

- NSF Graduate Research Fellowship *Honorable Mention*
- Awarded *Distinction* on senior thesis, Carleton College

2012:

- Duncan Stewart Fellowship for excellence in Geology, Carleton College

Service

2017-2018, 2018-2019 Academic years

- Two years serving as Professional Development Coordinator for the UW Madison Geoscience Graduate Student Association
 - Plan and organize the fall graduate student retreat
 - Plan and organize the spring Geoscience department Research Symposium

Peer reviewed publications

Roberts, N. M., B. Tikoff, J. R. Davis, and T. Stetson-Lee (2018), The utility of statistical analysis in structural geology, *Journal of Structural Geology* (in Press).

Tikoff, B., J. Newman, V. Chatzaras, **N. M. Roberts** (2018), Big data in microstructure analysis: Building a universal orientation system for thin sections, *Journal of Structural Geology* (in Press).

Conference presentations

Roberts, N. M., C. Idzikowski, R. Key, B. Tikoff (2018), A Kinematic Record of Progressive Emplacement of the 3.47-3.23 Ga Mt Edgar Granitic Complex, East Pilbara Craton, Western Australia, *American Geophysical Union Fall 2018*, Poster.

Roberts, N. M., and B. Tikoff (2017), Dome-side-up sense of shear and uniform magnetic fabrics in the Mt Edgar dome, East Pilbara craton, Western Australia, *The specialist group in tectonics and structural geology biannual workshop, Denmark, Australia*. Oral presentation.

Tikoff, B., **N. M. Roberts**, V. Chatzaras, J. Newman, J. D. Walker, Randolph Williams (2017), The StraboSpot digital data system for field and microstructural data: Application to the Mt Edgar dome, Pilbara Craton, *Poster, The specialist group in tectonics and structural geology biannual workshop, Denmark, Australia*. Poster.

Roberts, N., J. R. Davis, S. J. Titus, and B. Tikoff (2015), Harnessing Multivariate Statistics for Ellipsoidal Data in Structural Geology, in *American Geophysical Union Fall 2015 Meeting*, Poster.

Davidson, C., J. Garver, and **N. Roberts** (2013), Hf isotope signatures of detrital Precambrian zircon suggest a southern Laurentian source for the Upper Cretaceous flysch of the Chugach-Prince William terrane, Alaska, in *2013 GSA Annual Meeting in Denver*, Poster.

Roberts, N., C. Davidson, J. Garver (2013), Provenance of the Chugach-Prince William Terrain, Alaska using U-Pb and Hf isotopes, *Talk at the 2013 North American Cordillera Workshop, Kingston, Canada*, Oral presentation.