

Postdoctoral Research Scientist
University of Wisconsin-Madison
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Current Research Projects

- 1) Data mining for the drivers of large vs. small footprint conditions in the [RACCOON Network CO₂ towers](#)
- 2) Diagnostic modeling of regional Rocky Mountain CO₂ fluxes using [CarbonTracker](#)
- 3) Comparison of [CLM](#) simulations: the spatial significance of seasonalizing anthropogenic CO₂
- 4) Development of a parallel seed selection routine for an existing parallelized k-means clustering algorithm

Education

Ph.D., 2009. Iowa State University, Ames, IA

Major: Geology

Research Focus: geoinformatics, high-precision U-Pb geochronology

Advisor and Department: Dr. Cinzia Cervato, Department of Geological & Atmospheric Sciences

Thesis: *Computational Geologic Approaches for Assessing the Abundance and Distribution of Fossil Diversity Through Time*

M.Sc., 2002. University of Bristol, Bristol, England

Research Focus: Palaeobiology

Advisor and Department: Dr. Simon Braddy, Department of Earth Sciences

Thesis: *The Colonisation of Land by Arthropods: a functional analysis and ichnological investigation*

B.S., 2000. Iowa State University, Ames, IA

Major: Biology

Publications

Bjørn-Gustaf J. Brooks. 2009. Applying Wavelet and Fourier Transform Analysis to Large Geophysical Datasets. *Lecture Notes in Computer Science*, volume 5545/2009, pages 426–434. Springer Berlin, Heidelberg. doi: [10.1007/978-3-642-01973-9_47](https://doi.org/10.1007/978-3-642-01973-9_47).

Bjørn-Gustaf J. Brooks and Cinzia Cervato. Habitat and Tectonic Controls of Marine Biogeography. Accepted.

Employment

Present: **Postdoctoral Research Scientist**, University of Wisconsin-Madison, Center for Climatic Research

July – October 2009: **Visiting Scientist**, Oak Ridge National Laboratory, Computational Earth Sciences Group

August 2006 – July 2009: **Lecturer**, San Jacinto College, Department of Geology

January 2003 – 2006: **Teaching Assistant**, Iowa State University, **Research Assistant**, joint project between Iowa State University and Massachusetts Institute of Technology's Geochemistry and Geochronology Laboratory

June 2004 – August 2004: **Research Assistantship**, University of Tennessee and National Science Foundation (NSF) Research Experience Undergraduate (REU): Biogeochemical Educational Experiences – South Africa

August 2002 – December 2002: **Research Assistant**, University of Iowa, Iowa City Iowa, position at Entomology Lab

April 2002 – August 2002: **Research Assistant**, ExSeed Genetics, Ames Iowa, position as an Adecco associate

May 1998 – August 2001: **Research Assistant**, Cambrian Groundwater, Oak Ridge, Tennessee

Technical Skills

Clean lab geochemistry, High-precision U/Pb geochronology

High performance computing: Linux/Unix, FORTRAN, C, PBS. Data analysis: IDL, Matlab/Octave.

Database development: PSQL, PostGIS, GRASS.

Honors and Awards

Teaching Excellence Award for outstanding contributions to collegiate academics. Iowa State University, April, 2004

Teaching Excellence Award for outstanding contributions to departmental teaching. Department of Geology, Iowa State University, April 2004

Committees

Graduate and Professional Student Senate, Iowa State University, January 2003 – January 2005

Iowa State University Athletic Council 2000

National Collegiate Athletic Association (NCAA) Student-Athlete Congress, representative for Iowa State University, 1998

The Big XII Student-Athlete Congress, representative for Iowa State University, August 1999 – May 2000

Foreign Exchange Student for the City of Oak Ridge, Tennessee to Naka-Machi, Japan, 1992