

CURRICULUM VITAE

Guillaume S. Mauger

111 14th Ave E, Apt C
Seattle, WA 98112
(206) 724-7284

guillaume.mauger@alumni.ucsd.edu
<http://www.mauger.org/guillaume>

EDUCATION

Scripps Institution of Oceanography, La Jolla, CA.

Ph.D. in Atmospheric Science.

Sept 2008

Thesis title: "Synoptic Sensitivities of Subtropical Clouds"

Harvey Mudd College, Claremont, CA.

BS in Applied Physics.

May 2001

SKILLS

Expertise in Climate Science: specialization in cloud physics and climate impacts.

Teaching experience: Independent instruction, course development, mentoring

Communication experience: research presentations, teaching, and outreach.

Teamworking skills: Participation in field campaigns, scientific collaborations.

Programming: C, FORTRAN, matlab, IDL, UNIX/Linux shell scripting (bash, csh)

RESEARCH EXPERIENCE

Climate Impacts in the Pacific Northwest

Design of an optimal precipitation network. *Office of the WA state climatologist (OWSC)*

Evaluation of the 2000-2001 Pacific Northwest drought. *Climate Impacts Group (CIG)*

Processing of Variable Infiltration Capacity (VIC) model output for WA HB 2860. *CIG*

NCAR Community Atmosphere Model (CAM) 3.5, GFDL Atmosphere Model 3 (AM3)

Developed new diagnostic technique for evaluating cloud and aerosol parameterizations.

MODIS, CERES, QuikScat, SSM/I, ECMWF analyses

Extensive experience in processing, validating, and data quality considerations.

Developed new Lagrangian technique for evaluating aerosol-cloud sensitivities

HYbrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) computations

Streamlined process for calculating batches of several thousand trajectories.

ABC (Atmospheric Brown Cloud) Post-Monsoon Experiment (APMEX) Oct 2004

Installed and maintained the DMT Cloud Droplet Probe (CDP)

Assisted with flight-planning and preliminary data processing

Cloud Indirect Forcing Experiment (CIFEX)

Apr 2004

Processed real-time satellite data using TeraScan, for use in flight planning

Maintained ground station instruments, e.g.: CCN counter, LIDAR, Aethalometer, etc.

OUTREACH EXPERIENCE

Seattle Central Community College, Seattle, WA

Oct 2008, 2009

Guest Lecture – "Climate Science and Policy"

Moontown Foundation: EcoApprentice Program, Seattle, WA

Aug 2009

Guest Lecture – "Causes and Consequences of Climate Change"

- Seattle Public Schools**, Seattle, WA 2009
Classroom volunteer at Franklin HS, Meany MS, and T.T. Minor Elementary
- British Columbia Sustainable Energy Association**, Victoria, BC Jan 2009
Guest Lecture – Climate, Clouds, and the Geoengineering of our Planet
- Seattle University**, Seattle, WA Nov 2008
Guest Lecture – Introduction to Cloud Physics and Climate Modeling
- NewSchool of Architecture and Design**, San Diego, CA. 2006-2008
Guest Lecture – overview of Climate Change for a course in sustainable development.
- French American International School (FAIS)**, San Francisco, CA. Mar 2007
Guest Lecture – bilingual introduction to Climate Change for a 6th grade science course
- Communications Office, Scripps Institution of Oceanography.** 2006, 2007
Included as a climate expert and contact on press releases announcing the opening of An Inconvenient Truth (2006), and the release of the executive summary for the Fourth Assessment Report of the IPCC (2007).
- Environmental Science and Policy (ESP) Forum.** 2005
Organized and led a weekly seminar course entitled “Interactions of Science and Policy”
- Environmental Science and Policy (ESP) Group.** 2002-2008
Group goal: Environmental policy seminars, outreach, and education.
Member/Coordinator. Helped lead seminar courses and organize outreach events.
- Upward Bound**, Claremont and San Diego, CA. 2001, 2003
Mentor/Tutor for underprivileged students.

TEACHING EXPERIENCE

- Seattle Central Community College**, Seattle, WA Sum/Fall 2009
Instructor: ENV 150, Environmental Issues and Problems
- COSMOS Summer School for Mathematics and Science, UCSD** July 2008
Cluster Assistant for “Living Oceans and Global Climate Change”
Designed and led lab experiments in Marine Biology, Radiation, and Fluid Dynamics
- UCSD Center for Teaching Development.** San Diego, CA. 2007-2008
TA Consultant.
Performed in-class observations of TAs and helped guide their teaching strategies.
- UCSD Earth Sciences Program.** San Diego, CA. Summer Session. Aug 2007
Instructor: EARTH 20 – Introduction to the Atmosphere.
Independently responsible for entire course: curriculum, course format, lectures, grades.
- Birch Aquarium at Scripps.** San Diego, CA. Spr 2007
Communicating Ocean Science to Informal Audiences (COSIA)
Focused on application of constructivist learning theory to Earth Science instruction
Designed an interpretive demonstration of light scattering for aquarium visitors
- UCSD Earth Sciences Program**, San Diego, CA. 2006-2007
Teaching Assistant (TA) for EARTH 15 – Natural Disasters.
Teaching Assistant (TA) for EARTH 20 – The Atmosphere.
- UCSD Environmental Systems Program**, San Diego, CA. Spr 2007
Teaching Assistant (TA) for MAE124 / ESYS103 – The Human Earth.
- Livermore Area Parks and Recreation Department (LARPD)** 2002
Nature Camp Counselor. Ages 4-14.
- Livermore and Pleasanton School Districts (LVJUSD, PUSD)** 2001-2002
Substitute Teacher.

PUBLICATIONS

- Hamlet, A. F. and **G. S. Mauger**: Ch. 8: Streamflow Locations, Sources of Natural Streamflow Data, and Key Hydrologic Products, in *Hydrologic Climate Change Scenarios for the Pacific Northwest Columbia River Basin and Coastal Drainages*. In Review, 2009.
- Bumbaco, K. A. and **G. S. Mauger**: A Technique to Optimally Design a Meteorological Network, *Eos Transactions*. In Review, 2009.
- McKinnon, K. A., **G. S. Mauger**, P. W. Mote, and P. Pall: A framework for climate change attribution with applications to the 2001 Pacific Northwest drought. In preparation, 2009.
- Mauger, G. S.** and J. R. Norris: Assessing the Impact of Meteorological History on Subtropical Cloud Fraction, *Journal of Climate*. In Review, 2009.
- Mauger, G.** and J. R. Norris: Meteorological Bias in Satellite Estimates of aerosol-cloud relationships, *Geophysical Research Letters*, 34, L16824, 2007.
- Hadley, O. L., V. Ramanathan, G. R. Carmichael, Y. Tang, C. E. Corrigan, G. C. Roberts, and **G. S. Mauger**: Trans-Pacific transport of black carbon and fine aerosols ($D < 2.5 \mu\text{m}$) into North America, *Journal of Geophysical Research*, 112(D5): D05309, 2007.
- Roberts, G. C., **G. Mauger**, O. Hadley, V. Ramanathan: North American and Asian aerosols over the Eastern Pacific Ocean and their role in regulating cloud condensation nuclei, *Journal of Geophysical Research*, 111(D13): D13205, 2006.

SELECTED PRESENTATIONS & MEETINGS

- Climate Action Reserve.** Seattle, WA Mar 2009
Workshop: Carbon Offsets.
- AGU (American Geophysical Union) Fall Meeting** Dec 2008
Oral Presentation: "Learning the Theory in Reverse: An Epistemological Approach to Introducing Concepts"
- Montreux Energy Forum.** La Jolla, CA Apr 2008
Invited participant: California Clean Energy Roundtable
- AMWG (Atmospheric Model Working Group) Meeting, NCAR** Mar 2008
Oral Presentation: "Stratocumulus Sensitivity to Aerosols and Dynamics: Evaluating Aerosol-Cloud Parameterizations"
- AMS (American Meteorological Society) 87th Annual Meeting** Jan 2007
Oral Presentation: "Stratocumulus Sensitivity to Aerosols and Dynamics"
- AMS (American Meteorological Society) 85th Annual Meeting** Jan 2005
Oral Presentation: "Aerosol-Cloud Interactions during the Cloud Indirect Forcing Experiment (CIFEX)"

PROFESSIONAL MEMBERSHIP

- Member, American Geophysical Union.** 2002-present
- Member, American Meteorological Society.** 2003-present

HONORS AND AWARDS

- ARCS Scholar (Achievement Rewards for College Scientists).** 2007-2008
Recipient of a Graduate Scholarship from the foundation.
- UCSD Summer Graduate Teaching Fellowship.** Summer Session. Aug 2007
Recipient. Taught EARTH 20. Details in Teaching section above.
- California Space Institute and California Space Grant Consortium.** 2006

Recipient. Summer Graduate Research Fellowship
Undergraduate Summer Institute in Applied Science (USI) – LLNL Aug 2001
Award Recipient. Intro to Applied Science research conducted at LLNL.
Eagle Scout, Boy Scouts of America (BSA), Tri-Valley Council, Livermore, CA. 1990-1997.

CITIZENSHIP/LANGUAGES

U.S. Citizen
Natively fluent in English and French
Beginning Spanish