

**CV**  
Timothy P Eichler

2944 Milton Blvd.  
St. Louis, Mo. 63104  
(571)-201-5530  
timothy.p.eichler@gmail.com

**Education**

Doctor of Philosophy (Earth and Environmental Science); Feb. 2000; Columbia University,  
New York, NY

Master of Science (Meteorology); Jun. 1989; Rutgers University,  
New Brunswick, N.J.

Bachelor of Science (Physics, Math Minor); Jun. 1984; St. Peter's College,  
Jersey City, N.J.

**Professional Experience**

July 2015-Present  
Assistant Professor School of Education  
Saint Louis University  
Saint Louis, Mo.

September 2014-Present  
Secondary Faculty Appointment  
Department of Environmental and Occupational Health  
Saint Louis University  
Saint Louis, Mo.

August 2014-Present  
Adjunct Assistant Professor Soil, Env. & Atmospheric Sciences  
University of Missouri  
Columbia, Mo.

August 2007-June 2015  
Assistant Professor Earth and Atmospheric Sciences  
Saint Louis University  
Saint Louis, Mo.

Dec. 2004-August 2007  
Physical Scientist  
National Oceanic and Atmospheric Administration's (NOAA) Office of Oceanic and  
Atmospheric Research (OAR)  
Silver Spring, Md.

Oct. 2002-Dec. 2004: Research Scientist  
NOAA's Climate Prediction Center (CPC), Camp Springs, Md.

Aug. 2001-June 2002: Senior Meteorologist  
Dynergy, Houston, Tx.

Apr. 2000-Aug. 2001: Research Associate NRC Fellowship

Oct. 1999-Aug. 2001: Consultant  
Environmental Defense Fund

Oct. 1999-Apr. 2000: Post-Doctoral Associate  
Columbia University, New York, NY

Sep. 1991-Sep. 1999: Research and Teaching Assistant  
Dept. of Geological Science, Columbia University, New York, NY

Aug. 1998-Jan. 1999: Senior Meteorologist  
Worldwide Weather Trading Co., New York, N.Y.

Dec. 1988-Sep. 1991: Scientific Programmer/Analyst  
NASA Goddard Institute for Space Studies, New York, NY

Sep. 1985-Dec. 1988: Research and Teaching Assistant  
Rutgers University, New Brunswick, N.J.

### **Publications (in print)**

Eichler, T., F. Alvarez, and J. Gottschalck, 2015: Northern hemisphere climatology and interannual variability of storm tracks in NCEP's CFS Model (Submitted to Advances in Meteorology special teleconnections edition)

Eichler, T. and Z. Pan, 2015: A synoptic analysis of the 1988 mid-western drought and 1993 flood using CFS Reanalysis data (Accepted with major revision by Advances in Meteorology special teleconnections edition)

Agell, Laurie, M. Barlow, J. Qian, F. Colby, E. Douglas, and T. Eichler, 2015: Climatology of Daily Precipitation and Extreme Precipitation Events in Northeast U.S. (Accepted with major revision by the Journal of Hydrometeorology).

Eichler, T. P., N. Gaggini, and Z. Pan, 2013: Impacts of global warming on Northern Hemisphere winter storm tracks in the CMIP5 model suite, J. Geophys. Res. Atmos., 118, doi:10.1002/jgrd.50286.

Eichler, T. and J. Gottschalck, 2013: A comparison of Southern Hemisphere cyclone track climatology and interannual variability in coarse-gridded reanalysis datasets, *Advances in Meteorology (Special Edition on Teleconnections and Anomalous Circulations)*, Volume 2013 (2013), Article ID 891260, 16 pages.

Eichler, T. and J. Gottschalck, 2013: Interannual Variability of Northern Hemisphere Storm Tracks in Coarse-Gridded Datasets, *Advances in Meteorology (Special Edition on Teleconnections and Anomalous Circulations)*, Volume 2013 (2013), Article ID 545463, 15 pages.

Eichler, T. and A. Londono, 2013: South America Climatology and Interannual Variability in NCEP's CFSR Data, *Advances in Meteorology (Special Edition on Teleconnections and Anomalous Circulations)*, Volume 2013 (2013), Article ID 492630, 15 pages.

Eichler, T. and A. Londono, 2013: ENSO Impacts on Lomas Formation in South Coastal Peru: Implications for the Pliocene?, *Advances in Meteorology*, Volume 2013 (2013), Article ID 175947, 7 pages.

Londono, A.C., S. Forman, T. Eichler, and J. Pierson, 2012: Episodic eolian deposition in the past ca. 50,000 years in the Alto Ilo dune field, southern Peru *Palaeogeography, Palaeoclimatology, Palaeoecology*, Volumes 346–347, 15 August 2012, Pages 12-24

Eichler, T. and W. Higgins, 2006: Climatology and Interannual Variability of North American Extratropical Cyclone Activity, *J. Clim.* Volume 19, Issue 10 pp. 2076–2093.

Eichler, T., D. Rind, and S. Zebiak, 2006: Impact of global warming on ENSO variability using the coupled giss GCM/ZC model. *Int. J. Climatol.*, 26, 1283-1314.

Bell, G. and T. Eichler, 2004: State of the Climate in 2003 d. Europe II) Summer Heat Wave, *Bulletin of the American Meteorological Society*, 85, pp. 546-548.

Gleason, K.L., A.M. Waple, T. Eichler, and G.D. Bell, 2004: State of the Climate in 2003 6. Regional Climate II) United States of America, *Bulletin of the American Meteorological Society*, 85, pp. 536-540.

Koteen, L., J. Bloomfield, T. Eichler, C. Tonne, R. Young, H. Poulshock, and A. Sosler, 2001: Hot Prospects: The Potential Impacts of Global Warming on Los Angeles and the Southland, EDF Document.

Druyan, L., P. Lonergan, and T. Eichler, 1998: A GCM Investigation of Global Warming Impacts Relevant to Tropical Cyclone Genesis, *International Journal of Climatology*

Del Genio, A., W. Zhou, and T. Eichler, 1993: Equatorial Superrotation in a Slowly Rotating GCM: Implications for Titan and Venus, *Icarus* 101:1-17.

Rossow, W., A. Del Genio, and T. Eichler, 1990: Cloud Track Winds from Pioneer Venus OCPP Images, *Journal of the Atmospheric Sciences*, 47: 2053-2084.

Eichler, T. and M. Shulman, 1987: A Note on the Climatology of Backdoor Cold Fronts, *National Weather Digest*, 12:14-16.

### **Publications (In Editorial Review)**

Gaggini, N., T. Eichler, and Z. Pan, 2015: A comparison of storm track precipitation in the IPCC AR4 and AR5 Suite of Models (Revise and resubmit to JGR).

Eichler, T. and J. Gottschalk, 2015: The climatology and interannual variability of storm tracks in NCEP's CFS Model for the Southern Hemisphere (Revise and resubmit to JGR)

### **Publications (in preparation)**

Alvarez, F., T. Hamill, T. Eichler, and C. Graves, 2015: Probabilistic Tornado Forecasts From GEFS Reforecasts (to be submitted to *Weather and Forecasting* by 12/1/2015).

**Note:** We will be writing and submitting papers based on our results from encouraging women to consider STEM careers utilizing plays. We are currently analyzing data from our project.

### **Proposals (Accepted)**

Support: Accepted (PI for SLU; Member of consortium with the U. of Missouri)

Project: Climate, Plants and Community in Missouri

Source of Support: NSF EPSCoR

Total Award: \$20,000,000 PI Amount: \$265208 Covered: 8/01/14-7/31/19

Support: Accepted (Co-PI)

Project: Central U.S. abnormality in climate change and its response to global warming

Source of Support: NOAA

Total Award Amount: \$225000 Covered: 9/1/11-8/31/14

Support: Accepted (PI)

Project: Encouraging women in STEM as a career choice: Innovative methods in promoting climate, weather, and Math literacy to an all-girl middle school.

Source of support: Saint Louis University

Total Award Amount: \$41730 Covered: 5/1/13-4/30/14

Support: Accepted (PI)  
Project: A Proposal to Update Computing Hardware to Support Weather and Climate Initiatives at Saint Louis University via Unidata Activities  
Source of Support: UCAR  
Total Award Amount: \$18616.00 Covered: 5/21/09-6/1/10  
Location: Saint Louis University

Support: Accepted (PI)  
Project: Evaluation of the Synoptic Climatology of NCEP's Coupled Forecast System  
Source of Support: SLU/Beaumont Fellowship  
Total Award Amount: \$5000.00 Covered: 1/1/09-1/1/10  
Location: Saint Louis University

### **Proposals Submitted**

Project (PI): Fun with Robotics: An Innovative Program to Encourage K-8 Students to Consider STEM as a Career  
Source of Support: Boeing  
Total Requested: \$100000 Covered: 10/1/15-9/30/16  
Location: Saint Louis University

### **Teaching Experience**

July 2015-Present:

Assistant Professor, Saint Louis University (School of Education)  
Statistics (graduate) and Survey of Science and Geography

Aug. 2007-Jun. 2015: Assistant Professor, Saint Louis University (Earth and Atmospheric Science)  
Synoptic I, Synoptic II, Weather & Forecasting Synoptic Climatology (graduate), Global Change, Foundations of Weather, and Understanding the Weather

Jul. 2006-Sep. 2006: Assistant Adjunct Professor Columbia University  
Taught a graduate level class in hydrology for the Master's Program in Environmental Science and Policy.

Jun. 2003-Aug. 2004: Participant in Intern Program at the Climate Prediction Center  
Assisted in providing undergraduate student interns technical, editorial, and scientific guidance on their projects

Jun. 1994-Jan. 2000: Student Advisor  
Advised College/High School Students on Science Research Projects  
Most Recent Project: CO<sub>2</sub> Induced Changes in ENSO Variability and its Potential Impact on the Southern California Coastline  
Student: Laurie Koteen, Environmental Defense Fund

Jun. 1994-Aug. 1994: General Meteorology Instructor  
Institute for Climate and Planets, NASA Goddard Institute for Space Studies,  
New York, NY

**Classes Taught (graduate)**

Statistics EDR 5100  
Special Topics (Synoptic Climatology) EAS 593  
Graduate Class for Prep for Graduate Student Written Exam (EAS 509) (Co-taught)

**Classes Taught (undergraduate)**

Survey of Science and Geography EDR1500  
Synoptic Meteorology I EAS 420  
Synoptic Meteorology II EAS 422  
Global Climate Change EAS 325  
Foundations of Weather EAS 142  
Understanding the Weather EAS 107

**Awards**

2014 recipient of William V. Stauder, S.J. Award for Excellence in Undergraduate Teaching in the Natural Sciences, Saint Louis University

**Graduate Students (2 graduated with PhD)**

Natalie Gaggini PhD May 2014  
Topic: *An investigation of mid-latitude cyclones in the AR5 Model Suite*

Frank Alvarez PhD May 2014  
Topic: *Medium range tornado forecasting using NOAA's reforecast data*

**Graduate Students (7 graduated with MS)**

Mary Fester MS May 2014  
Topic: *Impacts of global warming on severe weather climatology using the NARCCAP model suite*

Mallory Cato MS May 2014  
Topic: *A study of non-convective high winds in Northern Hemisphere Extratropical Cyclones*

Kelly Scott MS, Sep. 2012  
Topic: *The synoptic climatology of North Atlantic hurricanes in the high resolution CFS reanalysis data.*

Natalie Gaggini MS, received Sep. 2010

Title: *Impacts of climate change on storm tracks using the PCMDI suite of models*

Frank Alvarez MS, received Sep. 2010

Title: *An Investigation of Rapid Cyclogenesis: Reanalysis vs NCEP's CFS Model*

Ruth Nahmensen MS, received Sep. 2010

Title: *An Investigation of the evolution of bow echoes associated with squall lines, line echo wave patterns, and supercells.*

Allison Schmitz MS, received Sep. 2010

Title: *An Investigation to assess the robustness of aircraft radar data*

### **Graduate Students (Current: 1 PhD)**

Mary Fester PhD anticipated May 2017

Topic: TBD but related to incorporating extreme weather into education studies

**Dissertation committees, Completed:** Mr. Austin Gibbons (MS), Dr. Peter Kozich (PhD), Dr. Emily Eisenacher (PhD), Mr. Michael Folmer (MS), Mr. Andrew Kren (MS), Mr. Michael Mueller (MS), Dr. David Andrade (PhD), Mr. Jayson Gosselin (MS) Dr. Michael Folmer (PhD), Mr. Chris Sanders (MS), Mr. Michael Mueller (PhD).

### **Professional Societies**

American Meteorological Society

Missouri Academy of Sciences

American Geophysical Union

### **Invited Speaker**

Jan. 2015: Invited Speaker, SLU: The Science of Global Warming (annual occurrence)

Nov. 2013: Invited Speaker, Webster University: Tornadoes and their impacts in St. Louis

Jan. 2013: Invited Speaker, SLU: The Science of Global Warming

Oct. 2012: Invited Speaker, SLU Sustainability Conference: Impacts of Global Warming on Severe Weather

Jan. 2012: Invited Speaker, SLU: The Science of Global Warming

Jan. 2011: Invited Speaker, SLU: The Science of Global Warming

Feb. 2010: Invited Speaker, Rutgers: The Climatology and Interannual Variability of Storm Tracks: Observations and Models

Jan. 2010: Invited Speaker, SLU: The Science of Global Warming

Nov. 2009: Invited Speaker, MIT: The Climatology and Interannual Variability of Storm Tracks: Observations and Models

Oct. 2008: Invited Speaker, U. Missouri, Columbia: The Climatology and Interannual Variability of North American Stormtracks in the CFS Climate Model

Jun. 2008: Invited Speaker, AMS, St. Louis, Mo.: The Climatology and Interannual Variability of North American Stormtracks in the CFS Climate Model

Nov. 2000: Invited Speaker at the City College of New York  
Subject: Environmental Impacts of ENSO and Implications of Global Warming

May 2000: Invited Speaker at AMQUA Conference, University of Arkansas, Fayetteville  
Subject: Effects of Global Warming on ENSO using the GCM/ZC Model

March 2000: Invited Speaker at Stevens Institute of Technology, Hoboken, N.J.  
Subject: Effects of Global Warming on ENSO using the GCM/ZC Model

November 1999: Speaker at the Cleary School for the Deaf  
Subject: Effects of Weather on the General Public

March 1999: Invited Speaker at the Weather at the Summit Conference, Sugarbush, Vt.  
Subject: ENSO, NAO, and Northeast Climate Variability

December 1998: Invited Speaker at the Hollingsworth School  
Subject: Importance of Weather Forecasting on the General Public

November 1997: Invited Speaker at Hunter College  
Subject: ENSO Variability in the Coupled GCM/ZC Model

**Conference Host:**

October 2014: Local Host for NOAA's 39<sup>th</sup> Annual Climate Diagnostic and Prediction Workshop held in St. Louis

**Conference Chair:**

Oct. 2014: Chair, NOAA Climate Diagnostics and Prediction Workshop

April 2010: Chair, Missouri Academy of Sciences: Atmospheric Science

Jan. 2008: Chair, AMS New Orleans: Climate Change



## **Conference Presentations**

Oct. 2014 Talk NOAA Workshop: A synoptic analysis of the 1988 mid-western drought and 1993 flood using CFS Reanalysis data

Feb. 2014 Poster AMS: Impacts of global warming on Northern Hemisphere winter storm tracks in the CMIP5 model suite

Feb. 2014 Talk AMS: Climate Change Impacts on Storm Track Precipitation in the CMIP5 (Natalie Gaggini lead author)

Feb. 2014 Talk AMS: Producing new extended-range probabilistic tornado forecasts through statistical post-processing using a reforecast dataset (Frank Alvarez lead author)

Feb. 2014 Poster AMS: An Investigation of Extreme Wind Events in Extratropical Cyclones Using Innovative Satellite Techniques (Mallory Cato lead author)

Jan. 2010 Talk AMS: An Investigation of Bomb Cyclone Climatology: Reanalysis vs. NCEP's CFS Model (Frank Alvarez lead author)

Jan. 2010 Talk AMS: The Impacts of Climate Change on Storm Tracks in the PCMDI Suite of Models (Natalie Gaggini lead author)

Dec. 2009: Talk, AGU: An Investigation of Bomb Cyclone Climatology: Reanalysis vs. NCEP's CFS Model (Frank Alvarez lead author)

Dec. 2009: Poster, AGU: Impacts of Climate Change on Storm Tracks Using the PCMDI Suite of Models (Natalie Gaggini lead author)

Oct. 2008: Poster, NWA Louisville, Ky.: The Climatology and Interannual Variability of Southern Hemisphere Storm Tracks: Observations and Models

Jan. 2008: Talk, AMS New Orleans: The Climatology and Interannual Variability of North American Stormtracks in the CFS Climate Model

Jan. 2008: Poster, AMS New Orleans: The Climatology and Interannual Variability of Southern Hemisphere Storm Tracks: Observations and Models

Oct. 2005: Poster, Climate Diagnostic Workshop, State College, Pa.  
Subject: Climatology and Interannual Variability of Anticyclones

Oct. 2004: Poster, Climate Diagnostics Workshop, Madison, Wi.  
Subject: Stormtrack Simulations in the NCEP GFS/CFS Models

Oct. 2003: Talk, Climate Diagnostics Workshop, Reno, Nv.  
Subject: A Study of North American Stormtracks: Climatology, Interannual Variability, and Trends.

Aug. 2001-May 2002: Seasonal Weather Update to Dynegy once/month

Dec. 2000:Poster Session, AGU

Subject: Effects of Global warming on ENSO Variability in the Coupled GCM/ZC Model

May 1997:Poster Session, AGU

Subject: ENSO Variability in the Coupled GCM/ZC Model

## References

1. Dr. Patrick Market

Professor of Synoptic Meteorology

Dept. of Soil, Env. & Atmospheric Sciences

University of Missouri

302 ABNR, Columbia, MO 65211

Phone: 573-882-1496

Email: MarketP@missouri.edu

2. Dr. Anthony Lupo

Associate Professor

Dept. of Soil, Env. & Atmospheric Sciences

University of Missouri

302 ABNR, Columbia, MO 65211

Email: LupoA@missouri.edu

Phone: (573)-884-1638

3. Dr. Mathew Barlow

Associate Professor

Dept. of Environmental, Earth, and Atmospheric Sciences

University of Massachusetts Lowell

Email: [Mathew\\_Barlow@uml.edu](mailto:Mathew_Barlow@uml.edu)

Phone: 978-934-3908

4. Dr. Charles Graves

Associate Professor of Meteorology

Dept. of Earth and Atmospheric Sciences

Saint Louis University

St. Louis, Mo. 63108

Phone: 314-977-3121

Email: gravesce@slu.edu

5. Dr. Roger Lewis  
Professor and Chair  
Department of Environmental & Occupational Health; Director, Environmental Health  
Research Laboratory (EHRL)  
Saint Louis University  
St. Louis, Mo. 63108  
Phone: 314-977-8151  
Email: lewisrd@slu.edu

6. Dr. James Miller  
Professor, Rutgers University  
Email: miller@marine.rutgers.edu  
Phone: 732-932-6555 x. 545