

## CURRICULUM VITAE

**Gregory S. Poulos**

**June 2023**

ArcVera Renewables  
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### **Academic Training**

Ph. D., Atmospheric Science, Colorado State University, 1996 (*The Interaction of Katabatic Winds and Mountain Waves*)

M. S., Atmospheric Science, Colorado State University, 1992 (*The Potential Effect of Los Angeles Basin Pollution on Grand Canyon Air Quality*)

B. S., Meteorology, Cornell University, 1989

### **Professional Experience**

Principal Atmospheric Scientist and Chief Executive Officer, ArcVera Renewables, Golden, CO (2017-present)

Managing Director, V-Bar, LLC, Golden, CO (2009-present) (Associate, Director)

Board Member and Ex-President, Golden Civic Foundation, 2020-present

Founder and Chair, Golden Schools Foundation, Golden, CO (2010-2014)

Senior Meteorologist, Clipper Windpower Development Company, Inc., Carpinteria, CA (2007-2009)

Scientist (II) and Research Technology Facility Manager, Earth Observing Laboratory, National Center for Atmospheric Research, Boulder, Colorado (2003-2007)

Adjunct Associate Professor, University of Utah, Department of Meteorology (2004 - 2014)

Research Faculty, University of Colorado, Boulder, Department of Atmospheric and Oceanic Sciences, (1997-2007, 2014-present)

Research Scientist, Colorado Research Associates, a division of Northwest Research Associates, Boulder, Colorado (1997-2003)

Founder, Principal, Foresight Weather LLC, Boulder, Colorado (1999 - 2003)

Los Alamos National Laboratory, Los Alamos, NM (1992, 1994 - 1996)

Graduate Research Assistant, Colorado State University (1989 – 1992, 1993 - 1996)

Weather Services Inc. (WSI), Bedford, Massachusetts (1988, Summer)

National Weather Service (NWS) Intern, Burlington, Vermont (1987, Summer)

### **Professional Appointments and Committees**

Advisory Committee, Department of Earth and Atmospheric Sciences, Cornell University, 2022-present.

International Electrotechnical Committee (IEC) 61400-15 – Standard for wind energy resource assessment, 2019-current

Resource Technology Workshop, Session Chair, Wakes and Wind-Farm Atmosphere Interaction, American Clean Power Association, 2022.

Resource Technology Workshop (formerly Project Resource and Energy Assessment Workshop and other names) Planning Committee, American Wind Energy Association (now American Clean Power Association) 2014, 2016, 2019.

Chair, American Meteorological Society Committee on Mountain Meteorology, 2003-2006

National Science Foundation, Facilities Advisory Committee (FAC), 2003-2005

National Science Foundation, Observing Facilities Advisory Panel (OFAP), 2002-2003

American Meteorological Society Committee on Mountain Meteorology, 2001-2007

Co-Chair, American Meteorological Society Mountain Meteorology Conference, 2004, Bartlett, NH

Guest Editor, Journal of Atmospheric Sciences, CASES-99 2nd Special Issue and William Blumen Memorial Issue, 2002-2003

Guest Editor, Boundary-Layer Meteorology, CASES-99 1st Special Issue, 2000-2002

### **Inventions/Patents**

Poulos, G. S., S. Semmer, J. Fox, J. Miltzer and G. Maclean, 2006: Self-orienting embedded in-situ flux system. Patent No. 794981 dated May 24, 2011.

### **Honors/Awards**

2022 Invited presentation: Musings on the Energy Transition and Wind Energy in Practice. Cornell University, Department of Earth and Atmospheric Sciences, 27 October.

Invited presentation on wind resource assessment requirements and needs for wind

energy prediction. National Renewable Energy Laboratory, January 2008.

Invited presentation: Momentum fluxes in the near-surface stably-stratified atmosphere and the role of path-length averaging: A recent test at T-REX. *The Sedona Workshop on the Atmospheric Stable Boundary Layer, Sedona, Arizona, November 2006.*

Invited presentation: 'Globally intermittent turbulence in the stable boundary layer: The observational and numerical modeling challenge', *University of Houston, 2006.*

Invited presentation on the 'A historical perspective on the study of katabatic flows and future research avenues': *28th International Conference on Alpine Meteorology (ICAM), Zadar, Croatia, 23-27 May 2005, p.8.*

Leadership Academy, National Center for Atmospheric Research, January - June 2005.

Invited presentation: 1st GEWEX Atmospheric Boundary Layer Study (GABLS) meeting, sponsored by the World Meteorological Organization, March 25-27, 2002, European Centre for Medium-range Weather Forecasting, Reading, England.

Accepted to the Meteo-France, Centre National de Recherches Meteorologiques, 1 year Visiting Scientist Program, 1997.

Received grant to attend the 7th Conference on Mesoscale Processes co-sponsored by the American Meteorological Society and the Royal Meteorological Society, 9-13 September 1996, Reading, England.

Invited to the 1995 National Center for Atmospheric Research Advanced Study Program on the Planetary Boundary Layer and its Parameterization (with support), held 24 July - 4 August in Boulder, Colorado.

Selected to attend the 1994 National Oceanic and Atmospheric Administration Colloquium on Operational Environmental Prediction, 6 June - 1 July 1994 (with scholarship), College Park, Maryland.

Received grant to attend the 71st Annual Meeting of the American Meteorological Society and 2nd Symposium on Global Change Studies, 14-18 January 1991, New Orleans, Louisiana.

Colorado State University Fellowship, (1989-1990)

## **Education and Outreach**

Ph. D. committee member for Miguel Gomez-Sanchez University of Colorado, Boulder (Julie Lundquist, advisor), 2021-2023.

Ph. D. committee member for Jessica Tomaszewski, University of Colorado, Boulder

(Julie Lundquist, advisor), 2018-2020.

Ph. D. committee member for Clara St. Martin, University of Colorado, Boulder (Julie Lundquist, advisor), 2012-2016.

Ph. D. committee member for Justin Cox, University of Utah (Jim Steenburgh advisor), 2003-2005.

Initiated a partnership (working with Susan Foster) between NCAR Education and Outreach and the Boston Museum of Science and the Denver Museum of Nature and Science with the specific purpose of fostering student and public interest in atmospheric observations and atmospheric science, 2004-2005.

Panel Member, Career opportunities in Atmospheric Science, Cornell University, Department of Earth and Atmospheric Sciences, April 29-30, 2005.

Guest lecturer, Cooperative Program for Operational Meteorology, Education and Training (COMET), University Corporation for Atmospheric Research, Winter Weather Course, *Quantitative Precipitation Forecasting in Complex Terrain*, February, 2002, December, 2003, 2004, 2005.

Module preparation, Cooperative Program for Operational Meteorology, Education and Training (COMET), University Corporation for Atmospheric Research, *Mountain Waves*, 2003-2004.

Interview with Dow Jones Newswire (Spencer Jakab), regarding the value of seasonal forecasts to the energy industry, as part of an article that appeared 11 Nov 2004.

Science Fair Judge, Grade 5, Jefferson County School District, Colorado, December 2004-current

Lecturer, Complex Terrain Meteorology, Mountaineering and Avalanche Courses, National Ski Patrol (2001-current).

Teacher, Weather Merit Badge, Boy Scouts of America (2002).

### **Field Experience**

Over 200 60-m to 140-m meteorology tower and sodar and lidar deployments for wind and solar energy development throughout the world, August 2007-present.

SONDE-08 (dryline study): Lead EOL Scientist for 12 member flux tower line, May-June 2008, PI Margaret Lemone, National Center for Atmospheric Research (2006-present).

CuPIDO (Cumulus Photogrammetric, In-Situ and Doppler Observations): Lead EOL Scientist for 10-node tower array and flux sites, Jul-Aug 2006 (2005-present).

TREX (Terrain-induced Rotors Experiment): PI, Instrument PI, Steering Committee member, Mar-Apr 2006 (2003-2006).

SHARE: PI, Working group member, Instrument lead for ISS, Soundings and precipitation network. Planned for Dec 2008-Jan 2009 in the western Sierra (2004-present).

VTMX (Vertical Transport and Mixing Experiment): PI, operator, tethered balloons, tracer studies, tower systems, Salt Lake City, October 2000, funded by the Department of Energy.

CASES-99: Co-lead and PI, Cooperative Atmosphere-Surface Exchange Study - 1999 field experiment, (1997-2003) near Wichita, Kansas. Funded by the National Science Foundation and Army Research Office.

MAP: PI, Flight scientist, Electra, Gravity wave breaking missions, Mesoscale Alpine Project, Sep-Nov 1999 near Innsbruck, Austria. Funded by the National Science Foundation.

ASCOT 1991, 1993: Participant, researcher. Deployed tower and sodar systems. Atmospheric Studies in Complex Terrain experiment, near Rocky Flats, CO, Fall, 1991, Fall, 1993.

**Funded Proposals (Total: 2,531k) – Basic Research Only*****Proposals awarded as PI (Total: 1,634k)***

1. *The mutual interaction of the atmospheric boundary layer and mountain waves*, 15 Dec 1997 - 14 Dec 2000. Co-I: Dave Fritts, National Science Foundation, \$197,000.
2. *CASES-99: Stable nocturnal boundary layer dynamics: Flux sources, intermittency and transport processes*, 1 Nov 1999 - 31 Jan 2003. Co-Is: Dave Fritts and Bill Blumen, Army Research Office, \$271,691.
3. *The role of internal gravity waves and shear instability in basin cold pool turbulence and transport*, 1 Sep 1999 - 31 Oct 2003. Co-I: Joe Werne, Department of Energy, \$508,606.
4.  *$Ri > 0$  NBL dynamics and model adequacy utilizing CASES-99 observations: Local and non-local flux source evaluation with revised surface layer parameterization*, 1 Feb 2003 - 31 Dec 2005. Co-Is: Dave Fritts and Bill Blumen, Army Research Office, (est'd) \$140,000.
5. *An investigation of parameterization errors in numerical simulations of stably-stratified atmospheric boundary layers using CASES-99 observations*, 15 Dec 2000 - 30 Nov 2003. Co-I: Branko Kosovic, National Science Foundation, \$248,909.
6. *VTMX Renewal: The role of internal gravity waves and shear instability in basin cold pool turbulence and transport*, 1 Nov 2003 - 31 Oct 2004. Co-I: Joe Werne, Department of Energy, \$138,147.
7. *Observational data analysis and modeling for the Cold Land Processes Experiment*, 15 Jan 2004 - 30 Sep 2006. Co-Is: Pete Stamus, John Snook, Army Cold Regions Research and Engineering Laboratory, \$68,495. (split funded, see next)
8. *Observational data analysis and modeling for the Cold Land Processes Experiment*, 15 Jan 2004 - 30 Sep 2005. Co-Is: Pete Stamus, John Snook, National Aeronautics and Space Administration, \$61,521.

***Proposals awarded as co-I (Total: 897k)***

9. *An analytic and numerical investigation of natural infrasound generation in applications to infrasonic NUDET detection and location*, 15 Sep 1998 - 14 Sep 1999. PI: Dave Fritts, Department of Energy, \$120,000, 5.0 mo/year to co-I Poulos.
10. *Numerical and observational studies of mountain wave breaking, PV banners and momentum transports in support of the Mesoscale Alpine Program*, 1 Apr 1999 - 31 Mar 2002. PI: Dave Fritts, \$209,675, 3.0 mo/year to co-I Poulos.
11. *Low-level turbulent zones and associated rotors in the lee of mountains*, 1 Jan 2003 - 31 Dec 2005. PI: Rolf Hertenstein, \$332,032, 2.4 mo/year to co-I Poulos.

12. *Efficient modeling of blood flow in compliant vessels*, 1 Sep 2003 - 31 Aug 2007.  
National Institutes of Health, \$235,227, 1.0 mo/year to co-I Poulos.

**Professional Memberships**

IEC, International Electrotechnical Commission (TC88 Wind energy generation systems/61400-15), 2019-present.

ARESCA, American Renewable Energy Standards and Certification Association, 2021-present.

American Meteorological Society, 1989 - present

American Clean Power Association/American Wind Energy Association, 2007 - present

American Geophysical Union, 1994 - present, (lifetime membership)

Global Wind Energy Council, 2012-present

Air and Waste Management Association, 1990-1998

## **Publications**

### ***In the reviewed literature***

#### ***First author***

1. G. S. Poulos and Zhong, S., 2008: An observational history of small-scale katabatic winds in mid-latitudes. *Geog. Compass.*, **2**, 1798-1821.
2. Poulos, G. S., J. Wang, D. K. Lauritsen and H. Cole, 2007: Targeted dropwindsondes in complex terrain. *J. Atmos. Ocean. Tech.*, **24**, 1489-1494.
3. Poulos, G. S., J. E. Bossert, R. A. Pielke and T. B. McKee, 2007: The interaction of katabatic flow and mountain waves II: Case study analysis and conceptual model. *J. Atmos. Sci.*, **64**, 1857-1879.
4. Poulos, G. S. and S. P. Burns, 2003: An evaluation of bulk Ri-based surface layer flux formulae for stable and very stable conditions with intermittent turbulence. *J. Atmos. Sci.*, **60**, 2523-2537. (*William Blumen Memorial and CASES-99 Special Issue*).
5. Poulos, G. S., 2002: Preface - CASES-99 Special Issue. *Bound.-Layer Meteor.*, **105**, 197-198.
6. Poulos, G. S., D. A. Wesley, J. S. Snook and M. P. Meyers, 2002: A Rocky Mountain storm - Part I: The Blizzard - observations, dynamics and modeling. *Wea. and Forecasting*, **17**, 955-970.
7. Poulos, G. S., W. Blumen, D. C. Fritts, J. K. Lundquist, J. Sun, S. P. Burns, C. Nappo, R. Banta, R. Newsome, J. Cuxart, E. Terradellas, B. Balsley and M. Jensen, 2002: CASES-99: A comprehensive investigation of the stable nocturnal boundary layer. *Bull. Amer. Meteor. Soc.*, **83**, 555-581.
8. Poulos, G. S., J. E. Bossert, R. A. Pielke and T. B. McKee, 2000: The interaction of katabatic flow and mountain waves I: Observations and idealized simulations. *J. Atmos. Sci.*, **57**, 1919-1936.
9. Poulos, G. S. and J. E. Bossert, 1995: An observational and prognostic numerical investigation of complex terrain dispersion. *J. Appl. Met.*, **34**, 650-669.
10. Poulos, G. S., and R. A. Pielke, 1994: A numerical analysis of Los Angeles Basin pollution transport to the Grand Canyon under stably stratified, southwest flow conditions. *Atmos. Environ.*, **28**, 3329-3357.

#### ***Second author***

1. Wesley, D. A., G. Poulos, J. Snook, P. Kennedy, M. Meyers, and G. Byrd, 2013: Extreme snowfall variations and cold air damming in the Front Range heavy



snowstorm of 17-19 March 2003. *J. Operational Meteor.*, **1 (4)**, 26-51.

2. Schmidli, J., G. S. Poulos, M. H. Daniels and F. K. Chow, 2009: External influences on nocturnal thermally driven flows in a deep valley. *J. Appl. Meteor.*, **48**, 3-23.
3. Darby, L. and G. S. Poulos, 2006: The evolution of mountain waves and rotors in the lee of Pike's Peak under the influence of a cold front: Implications for aircraft safety. *Mon. Wea. Rev.*, **134**, 2857–2876.
4. Moeng, C-H, G. S. Poulos and M. A. LeMone, 2003: Preface - William Blumen Memorial CASES-99 Special Issue. *J. Atmos. Sci.*, **60**, i.
5. Bossert, J. E. and G. S. Poulos, 1995: A numerical investigation of mechanisms affecting drainage flows in highly complex terrain. *Theor. Appl. Clim.*, **52**, 119-134.

***Third author and further***

1. St. Martin, C., J. K. Lundquist, A. Clifton, G. S. Poulos, and S. J. Schreck, 2017: Atmospheric turbulence affects wind turbine nacelle transfer functions. *Wind Energ. Sci.*, **2**, 295–306.
2. St. Martin, C., J. K. Lundquist, A. Clifton, G. S. Poulos, and S. J. Schreck, 2016: Wind turbine power production and annual energy production depend on atmospheric stability and turbulence. *Wind Energ. Sci.*, **1**, 221–236.
3. Rife, D. L., E. Vanvyve, J. O. Pinto, A. J. Monaghan, C. A. Davis, and G. S. Poulos, 2013: Selecting Representative Days for More Efficient Dynamical Climate Downscaling: Application to Wind Energy. *J. Appl. Met.*, **52**, 47-63.
4. Whiteman, C. D., S. Hoch, and G. S. Poulos, 2009: Evening Temperature Rises on Valley Floors and Slopes: Their Causes and Their Relationship to the Thermally Driven Wind System. *J. Appl. Meteor. Clim.* **48**, 779-788.
5. Damiani, R., J. Zehnder, B. Geerts, J. Demko, S. Haimov, J. Petti, G. S. Poulos, A. Razdan, J. Hu, M. Leuthold, 2007: Cumulus Photogrammetric, In-Situ and Doppler Observations: The CuPIDO 2006 Experiment. *Bull. Amer. Meteor. Soc.*, **89**, 57-74.
6. Loescher, H., J. Jacobs, W. Krajewski, R. Mason, K. McGuire, B. Mohanty, G. S. Poulos, P. Reed, J. Shanley, O. Wendroth and D. Robinson, 2007: Enhancing water cycle measurements for future hydrologic research. *Bull. Amer. Meteor. Soc.*, **88**, 669-676.
7. Meyers, M. P., J. S. Snook, D. A. Wesley, and G. S. Poulos, 2003: A Rocky Mountain storm - Part II: The Forest Blowdown - observations, dynamics and modeling. *Wea. and Forecasting*, **18**, 662-674.
8. Blumen, W., R. Banta, S. P. Burns, D. C. Fritts, R. Newsome, G. S. Poulos and J. Sun, 2001: Turbulent statistics of a Kelvin-Helmholtz billow event observed in the

- nighttime boundary layer during the CASES-99 field program. *Dyn. Atmos. Oceans*, **34**, 189-204.
9. LeMone, M., R. L. Grossman, R. L. Coulter, M. L. Wesely, G. E. Klazura, G. S. Poulos, W. Blumen, J. K. Lundquist, R. H. Cuenca, S. F. Kelly, E. A. Brandes, S. P. Oncley, R. T. McMillen and B. B. Hicks, 2000: Land-atmosphere interaction research, early results and opportunities in the Walnut River Watershed in southeast Kansas: CASES and ABLE. *Bull. Amer. Meteor. Soc.*, **81**, 757-779.
  10. Doyle, J. D., D. R. Durran, C. Chen, B. A. Colle, M. Georgelin, V. Grubisic, W. R. Hsu, C. Y. Huang, D. Landau, Y. L. Lin, G. S. Poulos, W. Y. Sun, D. B. Weber, M. G. Wurtele and M. Xue, 2000: An intercomparison of model-predicted wave breaking for the 11 January 1972 Boulder windstorm. *Mon. Wea. Rev.*, **128**, 901-914.
  11. Pielke, R. A., R. A. Stocker, J. L. Eastman and G. S. Poulos, 1995: Comments on "A synoptic climatological analysis of air quality at Grand Canyon National Park" by Davis and Gay. *Atmos. Environ.*, **29**, 617-623.
  12. Pielke, R. A., R. A. Stocker, J. L. Eastman and G. S. Poulos, 1995: Second comment on "A synoptic climatological analysis of air quality at Grand Canyon National Park" by Davis and Gay. *Atmos. Environ.*, **29**, 625-638.
  13. Pielke, R. A., L. R. Bernardet, P. J. Fitzpatrick, S. C. Gillies, R. F. Hertenstein, A. S. Jones, X. Lin, J. E. Nachamkin, U. S. Nair, J. M. Papineau, G. S. Poulos, M. H. Savoie and P. L. Vidale, 1995: Standardized test to evaluate numerical weather prediction algorithms. *Bull. Amer. Met. Soc.*, **76**, 46-48.

***In preparation for the reviewed literature***

None

**In preprints conference papers, presentations, podcasts, and posters**

1. Poulos, G. S., M. Stoelinga, and W. Johnson, 2023: Maximizing US Offshore Wind Resources for BOEM Lease Value and Developer Success: NY Bight 0.5-2.0B Loss Example. American Clean Power Conference, New Orleans, 22-25 May.
2. Poulos, G. S., 2023: Uptime Wind Energy Podcast Interview, 24 May, published 19 June. <https://weatherguardwind.com/arcvera/>
3. Poulos, G. S., 2022: Offshore Wind Flow Modeling Long-Range Wake Losses – A Cautionary Tale and a Billion Dollar Riddle. New York State Energy Research and Development Authority, Presentation, 21 September.
4. Poulos, G. S., 2022: Practical Innovation: Wakes, Turbulence, and Wind Farm-Atmosphere Interaction. American Clean Power Resource + Technology Conference, Presentation, 8 September.

5. Poulos, G. S. and J. Crescenti, 2021: Wake Loss Model Replacement: Description and Validation of a New Wind Farm-Atmosphere Interaction Model. American Clean Power Resource and Project Energy Assessment Virtual Summit, Presentation, 29 September.
6. Poulos, G. S., 2020: Paradigm Shift: Wind Farm-Atmosphere Interaction (WFAI) in the Era of Large Rotors. American Wind Energy Association Wind Resource and Project Energy Assessment Conference, Presentation 30 September.
7. Jones, E. and G. S. Poulos, 2019: Blockage, Wind Farm-Atmosphere Interaction, and Wakes at a Coastal Wind Farm. American Wind Energy Association Wind Resource and Project Energy Assessment Conference, Poster, September.
8. Poulos, G. S., 2017: Complex Terrain Mesoscale Wind Flow Modeling: Successes, Failures, and Practical Advice. American Wind Energy Association Wind Resource and Project Energy Assessment Conference, Presentation, 28 September.
9. Poulos, G. S., V. Kumar, and P. A. Stamus, 2016: Wind farm uncertainty reduction by high-resolution mesoscale wind flow modeling. American Wind Energy Association Annual Conference, New Orleans, Louisiana Poster, May 2016.
10. Kumar, V. and G. S. Poulos, 2016: A model for realistic ten-minute interval production prediction at wind farms. American Wind Energy Association Annual Conference, New Orleans, Louisiana, Poster, May 2016.
11. D. F. Matson and G. S. Poulos, 2016: NRG Class 1 to #40C anemometer comparison for use in wind energy resource assessment. American Wind Energy Association Annual Conference, Orlando, Florida, Poster, May 2015.
12. Poulos, G. S., 2015: The most important factors in wind farm under-performance. American Wind Energy Association Wind Resource & Project Energy Assessment Seminar, New Orleans, Louisiana, Poster, December 2015.
13. Poulos, G. S., 2013: Investigating the wind flow modeling experiment. American Wind Energy Association Wind Resource & Project Energy Assessment Seminar, Las Vegas, Nevada, Presentation, December 2013.
14. Poulos, G. S., 2010: Modeling techniques in wind energy resource assessment: limitations, pitfalls and benefits. American Wind Energy Association Wind Resource & Project Energy Assessment Workshop, Oklahoma City, Oklahoma, Presentation, September 2010.
15. Poulos, G. S., 2008: Advanced wind resource assessment, The what, why and how (Atmospheric stability, the LLJ and turbulence). American Wind Energy Association Fall Conference, Palm Desert, California, Presentation, November, 2008.
16. Krishnamurthy, R., R. Calhoun, H. J. S. Fernando and G. S. Poulos, 2007:

- Measurements of turbulence in complex terrain. *12th Conference on Mesoscale Processes*, Waterville Valley, NH, 6-9 August.
17. Schmidli, J. and G. S. Poulos, 2007: Large-scale influences on mesoscale valley circulations in a deep valley. *12th Conference on Mesoscale Processes*, Waterville Valley, NH, 6-9 August.
  18. Wesley, D., E. Szoke, R. Pielke, W. Bua, D. Barjenbruch, S. Jascourt, G. Poulos, 2007: Initial analysis of model guidance for the Colorado Front Range barrage of snowstorms Nov. 2006 - Feb. 2007. *Preprints 22nd Conference on Weather Analysis and Forecasting/18th Conference on Numerical Weather Prediction.*, Park City, UT, June.
  19. Whiteman, C. D., G. S. Poulos and S. Hoch, 2007: On the causes of unsustainable evening transition temperature falls in valleys. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  20. Schmidli, J., G. S. Poulos and S. Mobbs, 2007: T-REX EOPs I: Mesoscale valley circulations and sensitivity to synoptic conditions. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  21. Mobbs, S., R. Burton, F. Perry, G. S. Poulos, J. Schmidli, S. Vosper and I. Brooks, 2007: T-REX EOPs II: Valley and larger scale forcing of the boundary layer. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  22. Poulos, G. S., J. Schmidli and S. Mobbs, 2007: T-REX EOPs III: Dynamic stability, near surface turbulent exchange and surface energy balance characteristics. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  23. Schmidli, J. and G. S. Poulos, F. K. Chow and M. H. Daniels, 2007: Nocturnal flow dynamics and pressure-driven channeling in a deep valley. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  24. Poulos, G. S. and J. Schmidli, 2007: The nature of intermittent turbulent exchange in a complex terrain valley. *27th International Conference on Alpine Meteorology*, Chambéry, France, 4-8 June.
  25. Poulos, G. S. and J. Schmidli, 2006: Turbulence in the stable near-surface atmosphere in the complex terrain of Owens Valley, California during T-REX. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
  26. Kingsmill, D., S. E. Yuter, B. A. Colle, R. A. Houze, Jr., B. Geerts, D. P. Lettenmaier, P. J. Neiman, G. S. Poulos, R. B. Smith, B. F. Smull, W. J. Steenburgh, and M. Steiner, 2006: Overview of the Sierra Hydrometeorology Atmospheric River Experiment (SHARE) *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
  27. Mobbs, S., G. S. Poulos, R. Burton, J. Schmidli, J. McQuaid, B. Brooks, V. Smith, F.

- Perry, and C. D. Whiteman, 2006: Elevated layering in the Owens Valley observed during T-REX. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
28. Schmidli, J. and G. S. Poulos, 2006: High-resolution modeling of the nighttime boundary layer evolution in the Owens Valley: Comparison to observations. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
29. Schmidli, J. and G. S. Poulos, 2006: High-resolution modeling of the nighttime boundary layer evolution in the Owens Valley: Sensitivity studies. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
30. Daniels, M. H., F. K. Chow and G. S. Poulos, 2006: Effects of soil moisture initialization on simulations of atmospheric boundary layer evolution in Owens Valley. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
31. Calhoun, R., G. S. Poulos and H. J. S. Fernando, 2006: Estimations of the dissipation of turbulent kinetic energy using sonics, 3-d hot-films and Doppler lidar during T-REX. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
32. De Wekker, S. F. J., S. D. Mayor, S. M. Spuler, B. M. Morley, D. J. Kirshbaum, G. S. Poulos, and T. M. Weckwerth, 2006: Visualizing atmospheric phenomena in mountainous terrain with a surface-based scanning aerosol lidar. First results of REAL from T-REX. *12th Conference on Mountain Meteorology*, Santa Fe, NM, August.
33. Poulos, G. S., S. Semmer, J. Militzer and G. Maclean, 2006: A novel method for the study of near-surface turbulence using 3-d hot-film anemometry. American Meteorological Society, 17th Symposium on Boundary Layers and Turbulence, San Diego, CA, May.
34. Poulos, G. S., 2006: The very stable boundary layer in flat versus complex terrain: CASES-99 versus T-REX. American Meteorological Society, 17th Symposium on Boundary Layers and Turbulence, San Diego, CA, May.
35. Poulos, G. S., D. A. Wesley, P. C. Kennedy, and S. A. Rutledge, 2005: CHILL, Particle ID, and MM5: The role of the barrier jet in meso-gamma-scale precipitation distribution in an extreme snowstorm. 32nd Conference on Radar Meteorology, Albuquerque, New Mexico, October.
36. Kennedy, P. C., S. A. Rutledge, G. S. Poulos and D. A. Wesley, 2005: Combined polarimetric and multiple Doppler radar observations of the 16-20 Mar 2003 Colorado area winter storm. 32nd Conference on Radar Meteorology, Albuquerque, New Mexico, October.
37. Poulos, G. S., 2005: A historical perspective on the study of katabatic flows and future research avenues. Invited presentation, S.3.1, 28th International Conference on Alpine Meteorology, May, Zadar, Croatia.

38. Poulos, G. S., D. A. Wesley and J. S. Snook, 2005: Causes of simultaneous lee and upwind record snowfall and extraordinary snowfall variation in a Rocky Mountain blizzard. E.25, 28th International Conference on Alpine Meteorology, May, Zadar, Croatia.
39. Lund, T. S., P. P. Sullivan and G. S. Poulos, 2004: Large eddy simulation of a weakly stable boundary layer using dynamic subgrid-scale models. American Meteorological Society - 16th Symposium on Boundary Layers and Turbulence, Portland, Maine, August.
40. Mayor, S. D., S. M. Spuler, B. M. Morley and G. S. Poulos, 2004: NCAR's new Raman-shifted eye-safe aerosol lidar (REAL) and first results from use in a densely populated urban area.
41. Cox, J. A., W. J. Steenburgh and G. S. Poulos, 2004: The sensitivity of thermally-driven mountain flows to land cover change. American Meteorological Society - 11th Conference on Mountain Meteorology, Bartlett, NH, June.
42. Wesley, D. A., G. S. Poulos, J. S. Snook and M. P. Meyers, 2004: Anomalously large snowfall variations across small spatial scales in the Rocky Mountain Front Range: the roles of blocking, surface winds, and the associated thermodynamic structure. American Meteorological Society - 11th Conference on Mountain Meteorology, Bartlett, NH, June.
43. G. S. Poulos, J. S. Snook, D. A. Wesley, M. P. Meyers and E. J. Szoke, 2004: An investigation of record heavy lee side orographic snowfall during the great western storm of March 16-20, 2003. American Meteorological Society - 11th Conference on Mountain Meteorology, Bartlett, NH, June.
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