

# Daniel J. Short Gianotti

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## Current position

*PhD Student*, Boston University, Boston

## Areas of specialization

Hydroclimatology · Ecohydrology · Precipitation Predictability  
Stochastic Modeling · Statistical Representations of Variability

## Education

In Progress	PhD in Geography and Environment, Boston University
2003	BS in Mathematics, Harvey Mudd College

## Publications & talks

### JOURNAL ARTICLES

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| 2015f | <b>Short Gianotti, DJ</b> , BT Anderson, & GD Salvucci (2015), "Precipitation climate signals in global climate models and observations," <i>Nature</i> , ( <i>in preparation</i> ).   |
| 2015e | <b>Short Gianotti, DJ</b> , BT Anderson, & GD Salvucci (2015), "A spatially-scalable precipitation weather generator model for climate nulls," <i>Environmetrics</i> , ( <i>in preparation</i> ).  |
| 2015d | Anderson, BT, <b>DJ Short Gianotti</b> , J Furtado, & E Di Lorenzo (2015), "A decadal precession of atmospheric pressures over the North Pacific," ( <i>in submission</i> ).   |
| 2015c | Anderson, BT, <b>DJ Short Gianotti</b> , & GD Salvucci (2015), "Detectability of historical trends in station-based precipitation characteristics over the continental United States," <i>Journal of Geophysical Research</i> ( <i>in press</i> ).   |
| 2015b | Gill, AL, AS Gallinat, R Sanders-DeMott, AJ Rigden, <b>DJ Short Gianotti</b> , JA Mantooth, & PH Templer (2015), "Changes in Autumn Senescence in Northern Hemisphere Deciduous Trees: a Meta-Analysis of Autumn Phenology Studies," <i>Annals of Botany</i> , Special Issue on Plants and Climate Change ( <i>in press</i> ). |
| 2015a | Anderson, BT, <b>D Gianotti</b> , & G Salvucci (2015), "Characterizing the potential predictability of seasonal, station-based heavy precipitation accumulations and extreme dry-spell durations," <i>Journal of Hydrometeorology</i> 16 (2) 843-856.  |
| 2014  | <b>Short Gianotti, DJ</b> , BT Anderson, & GD Salvucci (2014), "The Potential Predictability of Precipitation Occurrence, Intensity, and Seasonal Totals over the Continental United States," <i>Journal of Climate</i> 27 (18), 6904-6918.  |

2013b Pal, I, BT Anderson, GD Salvucci, & **DJ Gianotti** (2013), "Shifting seasonality and increasing frequency of precipitation in wet and dry seasons across the US," *Geophysical Research Letters* 40 (15), 4030-4035.

2013a **Gianotti, D**, BT Anderson, & GD Salvucci (2013), "What Do Rain Gauges Tell Us about the Limits of Precipitation Predictability?" *Journal of Climate* 26 (15), 5682-5688.

#### CONFERENCE PRESENTATIONS

2015 **Short Gianotti, DJ\***, GD Salvucci, & BT Anderson (2015) "Potential Predictability of Precipitation from Rain Gauges to GCMs," Scales and Scaling in the Climate System: Bridging Theory, Climate Models, and Data, Montréal Canada.

2015 **Short Gianotti, DJ\***, GD Salvucci, & BT Anderson (2015) "California Drought, Weather Variability, and Climate Variability," AGU Chapman Conference on California Drought: Causes, Impacts, and Policy, Irvine CA.

2014 **Short Gianotti, DJ\***, BT Anderson, & GD Salvucci (2014) "Characterizing weather and climate variability for precipitation: A data-based stochastic modeling framework," American Geophysical Union Fall Meeting, San Francisco CA.

2014 **Short Gianotti, DJ\***, BT Anderson, & GD Salvucci (2014) "Stochastic analysis of California's recent precipitation drought in the context of the last one hundred years," American Geophysical Union Fall Meeting, San Francisco CA.

2014 Dietze, M\*, HE Emery, D Gergel, **D Gianotti**, JA Mantooth, AJ Rigden (2014), "Integrating satellite and tower phenology: a case-study in real-time ecological forecasting" American Geophysical Union Fall Meeting, San Francisco CA.

2014 Dietze, M\*, HE Emery, D Gergel, **D Gianotti**, JA Mantooth, AJ Rigden (2014), "Predicting phenology: A case-study in real-time ecological forecasting," Ecological Society of America Annual Meeting, Sacramento CA.

2013 **Gianotti, DJ\***, BT Anderson, & GD Salvucci (2013), "Potential Predictability of Precipitation: Occurrence or Intensity?" 38th Climate Diagnostic and Prediction Workshop, College Park MD.

2012 **Gianotti, DJ\***, BT Anderson, & GD Salvucci (2012), "Establishing Potential Predictability of U.S. Precipitation Using Rain Gauge Data," 37th Climate Diagnostic and Prediction Workshop, Fort Collins CO.

2012 Pal, I\*, BT Anderson, G Salvucci, & **D Gianotti** (2012), "Magnitude and significance of observed trends in precipitation frequency over the U.S.," 37th Climate Diagnostic and Prediction Workshop, Fort Collins CO.

2012 Anderson, BT\*, **D Gianotti**, & GD Salvucci (2012), "Historical expansion of the summertime monsoon over the southwestern United States: What can regional models tell us about its causes?" Regional Spectral Modeling Workshop, Scripps Institution of Oceanography, San Diego CA.

2012 Pal, I\*, BT Anderson, G Salvucci, & **D Gianotti** (2012), "Magnitude and significance of observed trends in precipitation frequency over the US," American Geophysical Union Fall Meeting, San Francisco CA.

2011 **Gianotti, D\***, BT Anderson, & G Salvucci (2011), "Stochastic and deterministic aspects of observed seasonal-mean precipitation variations and extreme event occurrences over the United States," American Geophysical Union Fall Meeting, San Francisco CA.

2011 Anderson, BT\*, **D Gianotti**, & GD Salvucci (2011), "Detection of historical summertime monsoon precipitation variations and trends over the southwestern United States," WCRP Open Science Conference, Denver CO.

2011 Anderson, BT\*, **D Gianotti**, & GD Salvucci (2011), "Detection of historical precipitation variations and trends over the continental United States," Department of Energy Principal Investigators Meeting, Washington DC.

2007 Schubert, DH\*, **DJ Gianotti**, & K Sauers (2007), "Upgrades to a wastewater lagoon treatment system in a rural sub-Arctic community in Alaska," International Symposium on Cold Region Devel-

opment, Tampere Finland.

- 2007 Schubert, DH\*, **DJ Gianotti**, & G Jones (2007), "Application of a Thermal-hydraulic Model to Analyze and Design a Circulating Water System in Alaska," International Symposium on Cold Region Development, Tampere Finland.
- 2005 **Gianotti, DJ\***, C Woolard, & D White (2005), "Wastewater treatment lagoon design in rural Alaska," 45th Alaska Water and Wastewater Management Association Annual Statewide Conference, Juneau AK.

\* denotes presenting author

#### NON-REFEREED RESEARCH DOCUMENTS

- 2007 Schubert, DH, **DJ Gianotti**, & K Sauers (2007), "Upgrades to a wastewater lagoon treatment system in a rural sub-Arctic community in Alaska," Proceedings of the 8th International Symposium on Cold Region Development.
- 2007 Schubert, DH, **DJ Gianotti**, & G Jones (2007), "Application of a Thermal-hydraulic Model to Analyze and Design a Circulating Water System in Alaska," Proceedings of the 8th International Symposium on Cold Region Development.
- 2005 Woolard, C, **D Gianotti**, K Hardie, D White, & A Pinto (2005), "Waste Stabilization Pond Design and Performance Study," Prepared for the Alaska Department of Environmental Conservation.
- 2003 **Gianotti, DJ** (2003), "Fluid drop coalescence in a Hele-Shaw cell," Undergraduate Mathematics Thesis, Advised by A Nadim, *Harvey Mudd College*.
- 2002 Lampe, K, K Hultman, K Hedstrom, **D Gianotti**, E Deyo, & R Seat (2002), "Internal metrology for the Space Interferometry Mission," Undergraduate Physics Clinic Report, Advised by R Haskell, D MacDonald, & B Nemati, *Harvey Mudd College & NASA-JPL*.

#### NON-CONFERENCE PRESENTATIONS

- 2015 **Gianotti, DJ**, (2015) "Weather models for climate variability," Dept. of Earth & Env. Graduate Student Presentations, Boston University.
- 2014 **Gianotti, DJ**, (2014) "Real weather, fake weather, and the California Drought," Dept. of Earth & Env. Graduate Student Presentations, Boston University.
- 2012 **Gianotti, DJ**, (2012) "How predictable is rain?" Dept. of Geography & Env. Graduate Student Presentations, Boston University.
- 2012 **Gianotti, D**, BT Anderson, & G Salvucci (2012), "Stochastic and deterministic aspects of observed seasonal-mean precipitation variations and extreme event occurrences over the United States," Science and Engineering Research Symposium, Boston University.

## Appointments held

- 2011-2015 Research Assistant, Boston University
- 2011 Math Teacher, Boston Public Schools
- 2004-2010 Private Tutor, Anchorage & Los Angeles
- 2007-2008 Lab Technician, California Institute of Technology
- 2005-2006 Environmental Engineering Associate, GV Jones & Associates
- 2004-2005 Research Assistant, University of Alaska, Anchorage
- 2003-2005 Substitute Teacher, Anchorage School District
- 2004 Staff, National Youth Science Camp
- 2001-2003 Writing Consultant, Harvey Mudd College
- 2002 Research Assistant, Lawrence Berkeley National Lab

## Professional development

2015

*ComSciCon 2015* Communicating Science Workshop, Harvard University.

## Professional service

### JOURNAL REVIEWS

Hydrology and Earth System Sciences

### MEMBERSHIPS

American Geophysical Union

Boston Water Group