

IDENTIFYING INFORMATION:

NAME: Pardyjak, Eric

ORCID iD: <https://orcid.org/0000-0002-0180-0857>

POSITION TITLE: Professor

PRIMARY ORGANIZATION AND LOCATION: Department of Mechanical Engineering,
University of Utah, Salt Lake City, Utah, United States**Professional Preparation:**

ORGANIZATION AND LOCATION	DEGREE (if applicable)	RECEIPT DATE	FIELD OF STUDY
Los Alamos National Laboratory, Los Alamos, New Mexico, United States	Postdoctoral Fellow	05/2000 - 08/2001	Urban Atmospheric Flow Modeling
Arizona State University, Tempe, Arizona, United States	PHD	07/2001	Mechanical Engineering
University of Wisconsin, Madison, Wisconsin, United States	MS	07/1996	Mechanical Engineering
Michigan State University, East Lansing, Michigan, United States	BS	05/1994	Mechanical Engineering

Appointments and Positions

2013 - present Professor, Department of Mechanical Engineering, University of Utah, Salt Lake City, Utah, United States

2013 - present Adjunct Professor, Department of Atmospheric Sciences, University of Utah, Salt Lake City, New Mexico, United States

2016 - 2017 Visiting Professor, Université Paul Sabatier, Laboratoire d'Aérodologie, Toulouse, Not Applicable, N/A, France

2011 - 2011 Invited Professor, Université Paul Sabatier, Laboratoire d'Aérodologie, Toulouse, Not Applicable, N/A, France

2009 - 2010 Visiting Professor, École Polytechnique Fédérale de Lausanne, Lausanne, Not Applicable, N/A, Switzerland

2007 - 2013 Associate Professor, Mechanical Engineering, University of Utah, Salt Lake City, Utah, United States

2007 - 2013 Adjunct Assoc Professor, Department of Atmospheric Sciences, University of Utah, Salt Lake City, Utah, United States

2006 - 2007 Adjunct Assistant Professor, Department of Atmospheric Sciences, University of Utah, Salt Lake City, Utah, United States

2001 - 2007 Assistant Professor, Department of Mechanical Engineering, University of Utah, Salt Lake City, Utah, United States

Products**Products Most Closely Related to the Proposed Project**

1. Morrison T, Calaf M, Fernando H, Price T, Pardyjak E. A methodology for computing spatially and temporally varying surface sensible heat flux from thermal imagery. Quarterly Journal of

the Royal Meteorological Society. 2017 September 26; 143(707):2616-2624. Available from: <https://rmets.onlinelibrary.wiley.com/doi/10.1002/qj.3112> DOI: 10.1002/qj.3112

2. Morrison T, Calaf M, Pardyjak E. A full three-dimensional surface energy balance over a desert playa. *Quarterly Journal of the Royal Meteorological Society*. 2023 January 09; 149(750):102-114. Available from: <https://rmets.onlinelibrary.wiley.com/doi/10.1002/qj.4397> DOI: 10.1002/qj.4397
3. Morrison T, Calaf M, Higgins C, Drake S, Perelet A, Pardyjak E. The Impact of Surface Temperature Heterogeneity on Near-Surface Heat Transport. *Boundary-Layer Meteorology*. 2021 May 11; 180(2):247-272. Available from: <https://link.springer.com/10.1007/s10546-021-00624-2> DOI: 10.1007/s10546-021-00624-2
4. Nadeau D, Pardyjak E, Higgins C, Huwald H, Parlange M. Flow during the evening transition over steep Alpine slopes. *Quarterly Journal of the Royal Meteorological Society*. 2012 July 03; 139(672):607-624. Available from: <https://rmets.onlinelibrary.wiley.com/doi/10.1002/qj.1985> DOI: 10.1002/qj.1985
5. Jensen D, Nadeau D, Hoch S, Pardyjak E. The evolution and sensitivity of katabatic flow dynamics to external influences through the evening transition. *Quarterly Journal of the Royal Meteorological Society*. 2016 December 02; 143(702):423-438. Available from: <https://rmets.onlinelibrary.wiley.com/doi/10.1002/qj.2932> DOI: 10.1002/qj.2932

Other Significant Products, Whether or Not Related to the Proposed Project

1. Pardyjak E.R., Monti P., Fernando H. Flux Richardson number measurements in stable atmospheric shear flows. *Journal of Fluid Mechanics*. 2002 June 19; 459:307-316. Available from: https://www.cambridge.org/core/product/identifier/S0022112002008406/type/journal_article DOI: 10.1017/S0022112002008406
2. Pataki D, Emmi P, Forster C, Mills J, Pardyjak E, Peterson T, Thompson J, Dudley-Murphy E. An integrated approach to improving fossil fuel emissions scenarios with urban ecosystem studies. *Ecological Complexity*. 2009; 6(1):1-14. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S1476945X08000494> DOI: 10.1016/j.ecocom.2008.09.003
3. Margairaz F, Pardyjak E, Calaf M. Surface Thermal Heterogeneities and the Atmospheric Boundary Layer: The Thermal Heterogeneity Parameter. *Boundary-Layer Meteorology*. 2020 August 17; 177(1):49-68. Available from: <https://link.springer.com/10.1007/s10546-020-00544-7> DOI: 10.1007/s10546-020-00544-7
4. Morrison T, Pardyjak E, Mauder M, Calaf M. The Heat-Flux Imbalance: The Role of Advection and Dispersive Fluxes on Heat Transport Over Thermally Heterogeneous Terrain. *Boundary-Layer Meteorology*. 2022 February 07; 183(2):227-247. Available from: <https://link.springer.com/10.1007/s10546-021-00687-1> DOI: 10.1007/s10546-021-00687-1
5. Calaf M, Vercauteren N, Katul G, Giometto M, Morrison T, Margairaz F, Boyko V, Pardyjak E. Boundary-Layer Processes Hindering Contemporary Numerical Weather Prediction Models. *Boundary-Layer Meteorology*. 2022 September 05; 186(1):43-68. Available from: <https://link.springer.com/10.1007/s10546-022-00742-5> DOI: 10.1007/s10546-022-00742-5

Synergistic Activities

1. Collaborative Field Experiments - Pardyjak has worked together with government agencies, national labs, and universities from the U.S. and around the world to produce high-resolution field-experiment datasets of flow in complex terrain that have led to improved scientific understanding and modeling capabilities.
2. Multi-disciplinary Research – Pardyjak has been an active participant in the University of Utah’s Global Change and Sustainability Center (GCSC). The mission of the GCSC is “to encourage broad interdisciplinary research, education, and outreach on natural and human-built systems, the dynamic interactions between those systems, and the role of humans in the environment.”
3. Undergraduate Research – Pardyjak has made a strong effort to incorporate undergraduate students into his research program. Since 2001, Pardyjak has supervised or co-advised 40 undergraduate researchers in his lab.

Certification:

When the individual signs the certification on behalf of themselves, they are certifying that the information is current, accurate, and complete. This includes, but is not limited to, information related to domestic and foreign appointments and positions. Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Pardyjak, Eric in SciENev on 2023-11-14 00:25:39