

## **Sara C. Pryor**

Professor

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### **EDUCATION**

- P.D.F.** Atmospheric Science Programme, Department of Geography, University of British Columbia, Vancouver, Canada. 1993-95.
- Ph.D.** School of Environmental Sciences, University of East Anglia, U.K. 1992.
- B.Sc. (Hons) 1<sup>st</sup> cl.** School of Environmental Sciences, University of East Anglia, U.K. 1989.

### **APPOINTMENTS**

- Professor** Atmospheric Science Program, Department of Geography, Indiana University, Bloomington, IN47405. Jul 2005 –
- Associate Professor** Atmospheric Science Program, Department of Geography, Indiana University, Bloomington, IN47405. Aug 1999 – Jun 2005
- Assistant Professor** Atmospheric Science Program, Department of Geography, Indiana University, Bloomington, IN47405. Aug 1995 – Jul 1999

### **FIVE JOURNAL ARTICLES HIGHLY RELEVANT TO THE PROPOSAL: 2005-**

- Pryor S.C., Howe J.A. and Kunkel K.E. (2007): How spatially coherent and statistically robust are temporal changes in extreme precipitation across the contiguous USA. *International Journal of Climatology* (in review).
- Pryor S.C., Schoof J.T., Barthelmie R.J. (2006): Winds of Change? Projections of near-surface winds under climate change scenarios. *Geophysical Research Letters* **33** L11702 10.1029/2006GL026000
- Pryor S.C., Schoof J.T. and Barthelmie R.J. (2005): Potential climate change impacts on wind speeds and wind energy density in northern Europe: Results from empirical downscaling of multiple AOGCMs. *Climate Research* **29** 183-198.
- Pryor S.C., Schoof J.T. and Barthelmie R.J. (2005): Empirical downscaling of wind speed probability distributions. *Journal of Geophysical Research* **110** D19109 doi: 10.1029/2005JD005899.
- Pryor S.C., Barthelmie R.J. and Kjellström E. (2005): Analyses of the potential climate change impact on wind energy resources in northern Europe using output from a Regional Climate Model. *Climate Dynamics* **25** 815-835.

### **FIVE OTHER JOURNAL ARTICLES: 2003-**

- Schoof J.T. and Pryor S.C. (2007): On the proper order of Markov chain model for daily precipitation occurrence in the contiguous United States. *Journal of Applied Meteorology and Climatology* (in review).
- Schoof J.T., Pryor S.C. and Robeson S.M. (2007): Downscaling daily maximum and minimum temperature in the Midwestern USA: A hybrid empirical approach. *International Journal of Climatology* **27** 439-454.
- Pryor S.C., Barthelmie R.J. & Schoof J.T. (2005): The impact of non-stationarities in the climate system on the definition of 'a normal wind year': A case study from the Baltic. *International Journal of Climatology* **25** 735-752.
- Pryor S.C., Nielsen, N.M., Barthelmie R.J. & Mann J. (2004): Can satellite sampling of offshore wind speeds realistically represent wind speed distributions? Part II Quantifying uncertainties associated with sampling strategy and distribution fitting methods. *Journal of Applied Meteorology* **43** 739-750.
- Pryor S.C. & Barthelmie R.J. (2003): Long term variability of flow over the Baltic. *International Journal of Climatology* **23** 271-289.

## RECENT SYNERGISTIC ACTIVITIES: 2004-

- **Author** of 3 chapters for forthcoming book *The Climate of Indiana* to be published by Indiana University Press.
- **Invited participant in workshop on** Climate downscaling held by AMAP in Oslo (Norway), May 2007
- **Invited participant in workshop on** Arctic weather extremes to be held in Bergen (Norway), June 2006.
- **Presenter at meeting on Regional climate for the 4<sup>th</sup> AR of IPCC.** Hawaii, February 2005.
- **Participant in:**
  - **NEFP project ‘Climate and Energy’(2003-2006) and first author of report:** Pryor S.C. & Barthelmie R.J. (2004): Use of RCM simulations to assess the impact of climate change on wind energy availability. *Risoe Research report (RISO-R-1477, ISBN: 0106-2840), 111 pp.*
  - **Follow-up NEFP project Climate and Energy Systems: Risks, potential, adaptation. (2007-2010).**

## SAMPLE SERVICE ACTIVITIES

### Proposal panel member

- NSF, DoD, NASA, Environment Canada, European Union.

### Proposal/programmatic review

- Petroleum Research Fund, NIGEC, NASA, Natural Sciences and Engineering Research Council of Canada, NSF, EPA.

## COLLABORATORS AND OTHER AFFILIATIONS

### Principal collaborators during last 48 months

R.J. Barthelmie, Indiana University.

J. Brook, S.M. Li, Environment Canada.

O. Klemm, University of Munster.

M. Carreiro, University of Louisville.

L.L. Sørensen, N.O. Jensen, S.E. Larsen, N.E. Claussen,

C.B. Hassager, Risø National Laboratory.

B. Jensen, National Environmental Research Institute, Denmark.

C.S.B. Grimmond, Kings College London.

R. Benestad, Norwegian Meteorological Office

E. Kjellstrom, Rossby Center, SMHI

M. Kumala, T. Vesala, University of Helsinki

E. D. Roeckner, Max Plank Institute

J. Schwab, University of New York

E. Takle, Iowa State University

H. Sievering, University of Colorado

M. Gallagher, University of Manchester

L. Mauldin III, NCAR

H. Westberg, Washington State University

F. Binkowski, University of North Carolina

### P.D.F. supervision

Anne Hartley Ph.D. Justin Schoof. Ph.D

### Graduate students: (all supervised while at Indiana University)

Current: Fredi Birsan, Ph.D., Andrea Spaulding. M.S., Jessica Howe. M.S., Jennifer Hutton. Ph.D., Dimpali Vimal, Ph.D.

Past: Bao Chuong. Ph.D., Don Cortes. Ph.D., Kurt Hirzy. M.S., John Johnson. Ph.D., Brooks Pearson.

Ph.D., Nathan Polderman. M.S., Sean Potter. M.S., Justin Schoof. M.S. & Ph.D., Karsten Shein. M.A.,

Karen Spartz. M.A., Heidi Zutter. M.S.

### Postdoctoral and graduate advisors

**P.D.F. Supervisor:** D. Steyn, University of British Columbia, Vancouver, Canada.

**Ph.D. Supervisory committee:** T. Davies, J. Green, C. Vincent, University of East Anglia, Norwich, U.K.