

## **Name: Matthew Earl Pritchard**

### **Employer**

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY 14853

### **Degrees**

Undergraduate:	University of Chicago: Chicago, IL Honors in Physics and in the College	B.A. Physics 1997
Graduate:	California Institute of Technology (Caltech) Caltech: Pasadena, CA	M.S. Geophysics 2000 Ph.D. Geophysics 2003 Minor in Planetary Science
Postdoctoral:	Princeton University: Princeton, NJ	Geophysics 2004

### **History of Employment**

2017-present	Professor, Department of Earth & Atmospheric Sciences, Cornell University
2016 & 2019	Benjamin Meaker Visiting Professor, University of Bristol, UK
2005-2017	Assistant & Associate Professor, Dept. Earth & Atmos. Sciences, Cornell
2004	Harry Hess Postdoctoral Fellow, Princeton University
2003	Assistant Scientist, Caltech Seismological Laboratory
1997-2003	Graduate Research and Teaching Assistant, Caltech

### **Research Experience**

I am interested in how the Earth's surface deforms in response to earthquakes, magma movements, glacier dynamics, and human manipulation<sup>[SEP]</sup> of subsurface fluids. In these studies, I use a variety of tools including satellite Interferometric Synthetic Aperture Radar (InSAR), pixel tracking of optical and SAR images, field geophysical surveys, and high resolution Digital Elevation Models.

### **Key Publications**

Pritchard, M. E., R. M. Allen, T. W. Becker, M. D. Behn, E. E. Brodsky, R. Bürgmann, C. Ebinger, J. T. Freymueller, M. Gerstenberger, B. Haines, Y. Kaneko, S. D. Jacobsen, N. Lindsey, J. J. McGuire, M. Page, S. Ruiz, M. Tolstoy; L. Wallace; W. R. Walter, W. Wilcock, H. Vincent, New Opportunities to Study Earthquake Precursors, *Seismological Research Letters*, in press.

Zheng, W., M. E. Pritchard, M. J. Willis, L. A. Stearns, The possible transition from glacial surge to ice stream on Vavilov Ice Cap, *Geophysical Research Letters*, doi: 10.1029/2019GL084948, 2019.

Reath, K., M. Pritchard, M. Poland, F. Delgado, S. Carn, D. Coppola, B. Andrews, S. K. Ebmeier, E. Rumpf, S. Henderson, S. Baker, P. Lundgren, R. Wright, J. Biggs, T. Lopez, C. Wauthier, S. Moruzzi, A. Alcott, R. Wessels, J. Griswold, S. Ogburn, S. Loughlin, F. Meyer, G. Vaughan, M. Bagnardi, Thermal, deformation, and degassing remote sensing time series (A.D. 2000-2017) at the 47 most active volcanoes in Latin America: Implications for Volcanic Systems, *Journal of Geophysical Research-Solid Earth*, doi: 10.1029/2018JB016199, 2019.

Pritchard, M. E., J. A. Jay, F. Aron, S. T. Henderson, and L. E. Lara, Subsidence at southern

Andes volcanoes induced by the 2010 Maule, Chile earthquake, *Nature Geoscience*, 6, 632-636, 2013.

Willis, M. J., A. K. Melkonian, M. E. Pritchard, and A. Rivera, Ice mass loss from the Southern Patagonian Icefield, South America, between 2000 and 2012, *Geophysical Research Letters*, 39, L17501, doi:10.1029/2012GL053136, 2012.

Pritchard, M. E., S. Owen, S. Anandakrishnan, W. E. Holt, R. A. Bennett, P. LaFemina, P. Jansma, I. MacGregor, C. Raymond, S. Schwartz, S. Stein, and M. M. Miller, Open access to Piled geophysical datasets requires community responsibility, *Eos*, 93, p. 243, doi:10.1029/2012EO260006, 2012.

Watters, T. R., M. S. Robinson, R. A. Beyer, M. E. Banks, J. F. Bell III, M. E. Pritchard, H. Hiesinger, C. van der Bogert, P. C. Thomas, E. P. Turtle, and N. R. Williams, Recent thrust faulting on the Moon revealed by the Lunar Reconnaissance Orbiter Camera, *Science*, **329**, 936-940, 2010.

Pritchard, M. E., E. Norabuena, C. Ji, R. Boroschek, D. Comte, M. Simons, T. Dixon, and P. A. Rosen, Teleseismic, geodetic, and strong motion constraints on slip from recent southern Peru subduction zone earthquakes, *J. Geophys. Res.*, 112, 10.1029/2006JB004294, 2007.

Pritchard, M. E., and M. Simons, A satellite geodetic survey of large-scale deformation of volcanic centres in the central Andes, *Nature*, **418**, 167–171, 2002.

Pritchard, M. E., and D. J. Stevenson, Thermal aspects of a lunar origin by giant impact, in *Origin of the Earth and Moon*, eds. R. Canup and K. Righter, University of Arizona Press, 179-196, 2000.

### **Awards**

2020 Top 10% downloaded paper in *Geophysical Research Letters* (Zheng et al., 2019)  
2020 Top 10% downloaded paper in *Journal of Geophysical Research* (Reath et al., 2019)  
2015 American Geophysical Union Geodesy Section Award  
2013 American Geophysical Union Editors' citation for excellence in refereeing  
2010 National Science Foundation CAREER Award  
2008 NASA New Investigator Program Award  
2007 James and Mary Tien Excellence in Teaching Award, College of Engineering, Cornell  
2004 Harry Hess Postdoctoral Fellowship, Princeton University  
2001 NASA Earth System Science Graduate Student Fellowship  
1998 National Science Foundation Graduate Research Fellowship

### **Professional society memberships**

Life Member, American Geophysical Union; Life Member, International Association of Volcanology and Chemistry of the Earth's Interior; Member, Geological Society of America