

## Curriculum Vitae: Steven R. Cranmer

Department of Astrophysical & Planetary Sciences (APS)  
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- EMPLOYMENT** 2015–present: Associate Professor, APS Dept., University of Colorado
- HISTORY** 2011–2014: Lecturer on Astronomy, Harvard University  
1996–2014: Astrophysicist, Smithsonian Astrophysical Observatory
- EDUCATION** Ph.D. Physics and Astronomy, University of Delaware, 1992–1996.  
M.S. Astronomy, Ohio State University, 1990–1991.  
B.S. Physics, Drexel University, 1985–1990, *summa cum laude*.
- RESEARCH INTERESTS** ★ Heating of the solar corona and acceleration of the solar wind  
★ Plasma physics and kinetic theory of waves and turbulence  
★ Stellar astrophysics, radiative transfer, and spectroscopy
- HONORS** 2016 CU Boulder Faculty Teaching Excellence Program course development award  
2006 Karen Harvey Prize, Solar Physics Division of the AAS  
SAO Performance Awards: 9 annual awards between 1999 and 2013  
1997 Theodore Wolf Dissertation Prize, University of Delaware
- SOCIETIES & ACTIVITIES** Member of AAS (SPD Committee, 2003–2005, SPD Nominating Committee, 2014–2018), AGU, APS. SCOSTEP Sci. Discipline Representative (2008–2012). Daniel K. Inouye Solar Telescope (DKIST) Science Working Group, 2013–2018. Associate Editor, *JGR Space Physics*, 2006–2009.
- SELECTED GRANTS** ★ PI, 15% support, NSF SHINE Program, 2023–2026: “Testing theories of coronal heating and solar wind acceleration with multi-messenger data”  
★ PI, 15% support, NASA Heliophysics Supporting Research, 2020–2023: “Winnowing in the wind: Testing theories of solar wind acceleration”  
★ PI, 15% support, NSF AAG Program, 2016–2021: “Coronal turbulence driven from the photosphere: Preparing for the DKIST era”  
★ PI, 100% support, NASA Long-Term Space Astrophysics, 2004–2009: “Waves and turbulence in stellar winds across the H–R diagram”  
★ Summary: brought in > \$4.3 million as PI from 2001 to present.

**SELECTED PUBLICATIONS:** (127 journal papers, 289 meeting presentations [55 invited])

1. Cranmer, S. R., Chhiber, R., Gilly, C., Cairns, I., Colaninno, R., McComas, D., Raouafi, N., Usmanov, A., Gibson, S., & DeForest, C. 2023, “The Sun’s Alfvén Surface: Recent Insights and Prospects for the Polarimeter to Unify the Corona and Heliosphere (PUNCH),” *Solar Physics*, **298**, 126. [ADS]
2. Cranmer, S. R. 2020, “Heating Rates for Protons and Electrons in Polar Coronal Holes: Empirical Constraints from the Ultraviolet Coronagraph Spectrometer,” *Astrophys. J.*, **900**, 105. [ADS]
3. Cranmer, S. R., & Winebarger, A. R. 2019, “The Properties of the Solar Corona and Its Connection to the Solar Wind,” *Annual Review Astron. Astrophys.*, **57**, 157–187. [ADS]
4. Cranmer, S. R., & Saar, S. H. 2011, “Testing a Predictive Theoretical Model for the Mass Loss Rates of Cool Stars,” *Ap. J.*, **741**, 54. [ADS]
5. Cranmer, S. R., van Ballegoijen, A., & Edgar, R. J. 2007, “Self-consistent Coronal Heating and Solar Wind Acceleration from Anisotropic MHD Turbulence,” *Ap. J. Suppl.*, **171**, 520. [ADS]
6. Cranmer, S. R., Field, G. B., & Kohl, J. L. 1999, “Spectroscopic Constraints on Models of Ion Cyclotron Resonance Heating in the Polar Solar Corona and High Speed Solar Wind,” *Ap. J.*, **518**, 937. [ADS]