

Feng CHEN

Personal Information

High Altitude Observatory
National Center for Atmospheric Research
P.O. Box 3000, Boulder, CO, 80307, USA

Email: chenfeng@ucar.edu
Tel: +1 303-497-1580
Nationality: Chinese

Position

since 01/2016 ASP postdoctoral fellowship, High Altitude Observatory

06/2015 — 12/2015 Postdoctoral researcher, Max Planck Institute for Solar System Research

Education

02/2012 — 06/2015 PhD, Max Planck Institute for Solar System Research
and George-August-Universität Göttingen
Thesis title: *Coronal dynamics driven by magnetic flux emergence*
- Advisors: Prof. Dr. Hardi Peter and Prof. Dr. Manfred Schüssler

09/2009 — 12/2011 M. Sc., Astrophysics, Nanjing University, China
Thesis title: *Spectroscopic analysis of coronal extreme ultraviolet wave*
- Advisor: Prof. Dr. Mingde Ding

09/2005 — 06/2009 B. Sc., Astronomy, Nanjing University, China

Research Interests

The heating of the solar corona and the formation of coronal loops
Coupling between different layers of the solar atmosphere
Spectroscopic diagnostics on the solar corona and solar eruptions

Full list of publications

1. **F. Chen** and H. Peter, *Using coronal seismology to estimate the magnetic field strength in a realistic coronal model*, 2015 A&A 581 A137
2. **F. Chen**, H. Peter, S. Bingert, and M. C. M. Cheung, *Magnetic jam in the solar corona*, 2015 Nature Phys. 11 492
3. L. P. Li, J. Zhang, H. Peter, E. Priest, H. D. Chen, L. J. Guo, **F. Chen**, and D. Mackay, *Magnetic reconnection between a solar filament and nearby coronal loops*, 2016 Nature Phys. published online (doi:10.1038/nphys3768)
4. Jie Hong, M. D. Ding, Ying Li, Kai Yang, Xin Cheng, **Feng Chen**, Cheng Fang, and Wenda Cao *Bidirectional Outflows as Evidence of Magnetic Reconnection Leading to a Solar Microflare*, 2016, ApJL 820 L17
5. L. P. Li, H. Peter, **F. Chen**, and J. Zhang, *Heating and cooling of coronal loops observed by SDO*, 2015 A&A 583 A109
6. L. M. Yan, H. Peter, J. S. He, H. Tian, L. D. Xia, L. H. Wang, C. Y. Tu, L. Zhang, **F. Chen**, K. Barczynski, *Self-absorption in the solar transition region*, 2015 ApJ 811 48
7. M. C. M. Cheung, P. Boerner, C. J. Schrijver, P. Testa, **F. Chen**, H. Peter, and A. Malanushenko, *Thermal Diagnostics with SDO/AIA: A Validated Method for DEMs*, 2015 ApJ 807 143
8. J. Zhang, B. Zhang, T. Li, S. H. Yang, Y. Z. Zhang, L. P. Li, **F. Chen**, and H. Peter, *Coronal heating by the interaction between emerging active regions and the quiet Sun observed by SDO*, 2015 ApJL 799 L27

9. L. P. Li, H. Peter, **F. Chen**, and J. Zhang, *Conversion from mutual helicity to self-helicity observed with IRIS*, 2014 A&A 570 A93
10. **F. Chen**, H. Peter, S. Bingert, and M. C. M. Cheung, *A model for the formation of the active region corona driven by magnetic flux emergence*, 2014 A&A 564 A12
11. **F. Chen**, M. D. Ding, P. F. Chen, and L. K. Harra, *Spectroscopic analysis of interaction between an EIT wave and a coronal upflow region*, 2011 ApJ 740 116
12. **F. Chen** and M. D. Ding, *Evidence of Explosive Evaporation in a Microflare Observed by Hinode/EIS*, 2010 ApJ 724 640
13. **F. Chen**, M. D. Ding, and P. F. Chen, *Spectroscopic Analysis of an EIT Wave/dimming Observed by Hinode/EIS*, 2010 ApJ 720 1254

Research Skills

Three-dimensional magnetohydrodynamic simulations on the solar atmosphere

One-dimensional hydrodynamic simulations on coronal loops

Analysis on spectroscopic and imaging observations of the solar corona (Hinode/EIS, SOHO/EIT, STEREO/SECCHI, SDO/AIA)

Awards during education

2015 Advanced Study Program (ASP) postdoctoral fellowship, by NCAR

2011 Baosteel Scholarship, by Baosteel Education Foundation

2008 National Scholarship, by Ministry of Education of P. R. China

2007 National Scholarship, by Ministry of Education of P. R. China

2006 Renmin Scholarship (the first class), by Nanjing Univeristy