

# Yingna Su – CV

Astrophysicist  
Harvard-Smithsonian Center for Astrophysics

## Education History:

B.S. Physics, 2001, Hebei Normal University  
M.S. Astrophysics, 2004, Purple Mountain Observatory  
Ph.D. Astrophysics, 2008, Purple Mountain Observatory  
Predoctoral Fellow, 2005-2007, Harvard-Smithsonian Center for Astrophysics

## Professional History:

2009/12 - now      Astrophysicist, Harvard-Smithsonian Center for  
Astrophysics  
2008/03 - 2009/12    Postdoctoral Researcher, Harvard-Smithsonian Center for  
Astrophysics  
2008/02 - 2009/12    Assistant Researcher, Purple Mountain Observatory

## Work Experience:

I have experience in multi-wavelength (e.g., UV, EUV, X-rays, H-alpha) data analysis and non-linear force-free field modeling. Research interests include solar flares, filaments and their eruptions, coronal mass ejections, and the associated magnetic field configuration. Mission involvement with *TRACE*, *Hinode/XRT*, and *SDO/AIA*.

## Professional Association and Awards:

2009-now    Member of American Geophysical Union  
2007-now    Member of Solar Physics Division/AAS  
2007-now    Member of American Astronomical Society  
2009        Excellent PhD Thesis of Chinese Academy of Sciences  
2008        Excellent Award of the Director of Chinese Academy of Sciences  
2006        The Solar Physics Division of the American Astronomical Society  
Studentship Awards  
2003-2004    Scholarship of the Director of Purple Mountain Observatory  
2002-2003    Scholarship of the Director of Purple Mountain Observatory  
2001-2002    Excellent member of Chinese Academy of Science

## First-author Publications in Refereed Journals:

**Su, Y. N.**, Surges, V., van Ballegooijen, A. A., Deluca, E., & Golub, L. 2011, "Observations and Magnetic Field Modeling of the Flare/CME Event on 2010 April 8", *Astrophys. J.*, accepted.

**Su, Y. N.**, van Ballegoijen, A. A., & Golub, L. 2010, “Structure and Dynamics of Quiescent Filament Channels Observed by Hinode/XRT and STEREO/EUVI”, *Astrophys. J.*, 721, 901.

**Su Y. N.**, van Ballegoijen A. A., Schmieder B., Berlicki A., Guo, Y., Golub L., & Huang G. L. 2009, “Flare Energy Build-Up in a Decaying Active Region Near a Coronal Hole ”, *Astrophys. J.*, 704, 341.

**Su Y. N.**, van Ballegoijen A. A., Lites B. W., Deluca E. E., Golub L., Grigis P. C., Huang G. L., & Ji H. S. 2009, “Observations and Nonlinear Force-Free Field Modeling of Active Region 10953”, *Astrophys. J.*, 691, 105.

**Su Y. N.**, Golub L., van Ballegoijen A. A., Deluca E. E., Reeves K. K., Sakao T., Kano R., Narukage N., & Shibasaki K. 2007, “Evolution of the Sheared Magnetic Fields of Two X-class Flares Observed by *Hinode/XRT*”, *PASJ*, 59, S785.

**Su Y. N.**, van Ballegoijen A. A., McCaughey J., Deluca E. E., Reeves K. K., & Golub L. 2007, “What Determines the Intensity of Solar Flare/CME Events”, *Astrophys. J.*, 665, 1448.

**Su Y. N.**, Golub L., & van Ballegoijen A. A. 2007, “A Statistical Study of Shear Motion of the Footpoints in Two-ribbon Flares”, *Astrophys. J.*, 655, 606.

**Su Y. N.**, Golub L., van Ballegoijen A. A., & Gros M. 2006, “Analysis of Magnetic Shear in an X17 Solar Flare on October 28, 2003”, *Solar Phys.*, 236, 325.

**Su Y. N.**, & Huang G. L. 2004, “Polarization of Loop-top and Footpoint Sources in Microwave Bursts”, *Solar Phys.*, 219, 159.

#### **Co-authored Publications in Refereed Journals:**

Martens, P. C. H.; Attrill, G. D. R.; Davey, A. R.; Engell, A.; Farid, S.; Grigis, P. C.; Kasper, J.; Korreck, K.; Saar, S. H.; Savcheva, A.; **Su, Y.**; & et al. 2011, “Computer Vision for the Solar Dynamics Observatory (SDO)”, *Solar Phys.*

Ning, Zongjun, Ding, M. D., Qiu, K. P., Li, H., **Su, Y. N.**, & Fang, C. 2008, “A complicated solar eruption event on 2003 October 26. Solar flare”, *Astrophys. and Spa. Sci.*, 315, 45

Liu, R., Gilbert, H. R., Alexander, D., & **Su, Y. N.** 2007, “The Effect of Magnetic Reconnection and Writhing in a Partial Filament Eruption”, *Astrophys. J.*, 680, 1508

Sakao, T., Kano, R., Narukage, N., Kotoku, J., Bando, T., Deluca, E. E., Lundquist, L., Tsuneta, S., Harra, L. K., Katsukawa, Y., Kubo, M., Hara, H., Matsuzaki, K., Shimojo, M., Bookbinder, J. A., Golub, L., Korreck, K. E., **Su, Y. N.**, Shibasaki, K., Shimizu, T., & Nakatani, I. 2007, *Science*, 318, 1585

Reznikova, V. E., Melnikov, V. F., **Su, Y. N.**, & Huang, G. L. 2007, “Pulsations of Microwave Flaring Emission at Low and High Frequencies”, *Astronomy Reports*, 51, 588

Huang, G. L., Zhou, A. H., **Su, Y. N.**, & Zhang, J. 2005, “Calculations of the Low-cutoff Energy of Non-thermal Electrons in Solar Microwave and Hard X-ray Bursts”, *New Astronomy*, 10, 219

Zhou, A. H., **Su, Y. N.**, & Huang, G. L. 2005, “Energetic Electrons in Loop Top and Footpoint Microwave Sources”, *Solar Phys.*, 226, 327

Zhou A. H., **Su Y. N.**, & Huang G. L. 2004, “Effects of the Gyroresonance Absorption and self Absorption on the Gyrosynchrotron Radiation Spectrum”, *Chinese Physics letters*, 21, 2067

#### **Conference Proceedings:**

**Su, Y. N.**, van Ballegoijen, A., & Golub, L. 2011, “Asymmetric Structure of Quiescent Filament Channels Observed by Hinode/XRT and STEREO/EUVI”, submitted to Hinode-3 Conference Proceedings.

**Su, Y. N.**, Golub, L., van Ballegoijen, A., & Huang, G. L. 2006, “A Statistical Study of Shear Motion of EUV Footpoints in Two-ribbon Flares”, in V. Bothmer and A. A. Hady (eds.), *Proc. of the IAU Symposium 233, ‘Solar Activity and its Magnetic Origin’*, p. 409

**Su, Y. N.**, & Huang, G. L. 2003, “Analysis of Loop-top and Foot-point Sources in Microwave Bursts”, in *Proc. of the IAU Symposium 219, ‘Stars as Suns: Activity, Evolution and Planets’*, p. 246

**Su, Y. N.**, & Huang, G. L. 2003, “Analysis of Loop-top and Foot-point Sources in Microwave Bursts”, in A. Wilson (ed.), *Proc. of the International Solar Cycle Studies (ISCS) Symposium, ‘Solar variability as an input to the Earth’s environment’*, ESA SP-535, p. 695

Ning, Z. J., Fang, C., Ding, M. D., Yeh, C.-T., Li, H., **Su, Y. N.**, Zhang, Y., & Tan, C. M. 2005, “A CME and Related Phenomena on 2003 October 26”, in K. Dere, J. Wang, and Y. Yan. (eds.), Proc. of the IAU Symposium 226, ‘Coronal and Stellar Mass Ejections’, p. 123

Shao, C. W., Wang, M., Xie, R. X., Fu, Q. J., Liu, Y. Q., Tan, C. M., **Su, Y. N.**, & Ma, Y. 2005, “Characteristics of Solar Microwave Bursts Associated with CMEs: a Statistical Study”, in K. Dere, J. Wang, and Y. Yan. (eds.), Proc. of the IAU Symposium 226, ‘Coronal and Stellar Mass Ejections’, p. 129