CURRICULUM VITA

Yuhong Fan

EDUCATION:

1993, Ph.D., Astronomy, Institute for Astronomy, University of Hawaii at Manoa

1991, M.S., Astronomy, Institute for Astronomy, University of Hawaii at Manoa

1989, B.S., Space Physics, Beijing University, P.R. of China

RESEARCH INTEREST:

Solar magneto-hydrodynamics; solar dynamo and the emergence of solar active regions; coronal magnetic field evolution that produces flares and coronal mass ejections; structure and dynamics of coronal streamers; solar wind acceleration; helioseismology; scattering of solar p-mode waves by sunspots.

POST-DEGREE APPOINTMENTS:

2008-present	Senior Scientist, High Altitude Observatory, National Center for atmospheric research
2010-2015	Faculty Affiliate, Physics Department, Colorado State University
2005-2011	Section Head, Coronal and Heliospheric Section, High Altitude Observatory, National Center for Atmospheric Research
2004-2008	Scientist III, High Altitude Observatory, National Center for Atmospheric Research
2001-2004	Scientist II, High Altitude Observatory, National Center for Atmospheric Research
1998-2000	Scientist I, High Altitude Observatory, National Center for Atmospheric Research
1996-1997	Research Associate, JILA, Univ. of Colorado at Boulder
1993-1996	Research Associate, National Solar Observatory

HONORS & AWARDS

2015	HAO's 2015 John W. Firor Publication Award: Fan, Y. 2010: "On the eruption of coronal flux ropes", *The Astrophysical Journal, 719, 728*
2013	HAO's 2013 John W. Firor Publication Award: Weber, M. A.; Fan, Y.; Miesch, M. S., 2011, "The Rise of Active Region Flux Tubes in the Turbulent Solar Convective Envelope", *The Astrophysical Journal*, 741, 11
2006	Nomination for NCAR Outstanding Publication Award for paper, ``Numerical Simulations of Three-Dimensional Coronal Magnetic Field Resulting from the Emergence of Twisted Magnetic Flux Tubes", *The Astrophysical Journal*, **60**9, 1123
2005	``Hero of GONG" for leadership in organizing the 2005 SPD/AAS summer school on helioseismology
2001	Nomination for NCAR Outstanding Publication Award for paper, ``Nonlinear Growth of the Three-Dimensional Undular Instability of a Horizontal Magnetic Layer and the Formation of Arching Flux Tubes", *The Astrophysical Journal*, **546**, 509
1993	Donald E. Billings Award in Astro-Geophysics Research
1990	Solar Physics Division Studentship Award

PROFESSIONAL ASSOCIATION

American Astronomical Society (AAS)

Solar Physics Division, AAS

American Geophysical Union

International Astronomical Union

PUBLICATIONS

Section 1. Thesis

Title:	Dynamic Evolution of Emerging Magnetic Flux Tubes in the Solar Convective Envelope

Date: October 1993

Institute: Institute for Astronomy, University of Hawaii at Manoa

Adviser: George Fisher (UC Berkeley)

Section 2. Publications in Refereed Journals

2.1. Braun, D. C., C. Lindsey, **Y. Fan**, and S. M. Jefferies 1992: Local acoustic diagnostics of the solar interior, *Ap. J.*, 392, 739.

2.2. **Fan, Y.**, G. H. Fisher, and E. E. DeLuca 1993: The origin of morphological asymmetries in bipolar active regions, *Ap. J.*, 405, 390.

2.3. Canfield, R. C., J.-F. de la Beaujardiere, **Y. Fan**, K. D. Leka, B. Lites, A. N. McClymont, T. R. Metcalf, D. L. Mickey, and J.-P Wuelser 1993: The morphology of flare processes and electric currents in active regions. I. introduction and methods, *Ap. J.*, 411, 362.

2.4. Leka, K. D., R. C. Canfield, A. N. McClymont, J.-F. de la Beaujardiere, **Y. Fan**, and T. Fang 1993: The morphology of flare processes and electric currents in active regions. II. NOAA active region 5747 (October 1989), *Ap. J.*, 411, 370.

2.5. **Fan, Y**., G. H. Fisher, and A. N. McClymont 1994: Dynamics of emerging active region flux loops, *Ap. J.*, 436, 907.

2.6. Fisher, G. H., **Y. Fan**, and R. H. Howard 1995: Comparison between theory and observation of active region tilts, *Ap. J.*, 438, 463.

2.7. **Fan, Y**., D. C. Braun, and D.-Y. Chou 1995: Scattering of p-modes by sunspots. II. calculations of phase shifts from a phenomenological model, *Ap. J.*, 451, 877.

2.8. **Fan, Y**., and G. H. Fisher 1996: Radiative heating and the buoyant rise of magnetic flux tubes in the solar interior, *Solar Phys.,* 166, 17.

2.9. Lindsey, C., D. C. Braun, S. Jefferies, M. Woodard, **Y. Fan**, Y. Gu, and S. Redfield 1996: Doppler acoustic diagnostics of subsurface solar magnetic structure, *Ap. J.,* 470, 636.

2.10. DeLuca, E. E., **Y. Fan**, and S. H. Saar 1997: The emergence of magnetic flux loops in sunlike stars, *Ap. J.*, 481, 369.

2.11. **Fan, Y**., E. G. Zweibel, and S. R. Lantz 1998: Two-dimensional simulations of buoyantly rising, interacting magnetic flux tubes, *Ap. J.,* 493, 480.

2.12. Braun, D. C., C. Lindsey, **Y. Fan**, and M. Fagan 1998: Seismic holography of solar activity, *Ap. J.,* 502, 968.

2.13. **Fan, Y**., E. G. Zweibel, M. G. Linton, and G.~H. Fisher 1998: The rise of kink-unstable magnetic flux tubes in the solar convection zone, *Ap. J.*, 505, L59.

2.14. Braun, D. C., and **Y. Fan** 1998: Helioseismic measurements of the subsurface meridional flow, *Ap. J.,* 508, L105.

2.15. Lantz, S. R., and **Y. Fan** 1999: Anelastic MHD equations for modeling solar and stellar convection zones, *Ap. J. Supp.,* 121, 247.

2.16. **Fan, Y**., E. G. Zweibel, M. G. Linton, and G. H. Fisher 1999: The rise of kink-unstable magnetic flux tubes and the origin of δ-configuration sunspots, *Ap. J.*, 521, 460.

2.17. Linton, M. G., G. H. Fisher, R. B. Dahlburg, and **Y. Fan** 1999: Relationship of the multi-mode kink instability to δ -spot formation, *Ap. J.,* 522, 1190.

2.18. Fisher, G. H., **Y. Fan**, D. W. Longcope, M. G. Linton, and A. A. Pevtsov 2000: The solar dynamo and emerging flux, *Solar Phys.*, 192, 119.

2.19. **Fan, Y**., and D. Gong 2000: On the twist of emerging flux loops in the solar convection zone", *Solar Phys.*, 192, 141.

2.20. Fisher, G. H., **Y. Fan**, D. W. Longcope, M. G. Linton, and W. P. Abbett 2000: Magnetic flux tubes inside the sun, *Physics of Plasmas*, **7**, 2173.

2.21. Abbett, W. P., G. H. Fisher, and **Y. Fan** 2000: The three-dimensional evolution of rising, twisted magnetic flux tubes in a gravitationally stratified model convection zone, *Ap. J.*, **540**, 548.

2.22. **Fan, Y**. 2001: Non-linear growth of the 3D undular instability of a horizontal magnetic layer and the formation of arching flux tubes, *Ap. J.,* 546, 509.

2.23. Abbett, W. P., G. H. Fisher, and **Y. Fan** 2001: The effects of rotation on the evolution of rising Ω-loops in a stratified model convection zone, *Ap. J.,* 546, 1194.

2.24. **Fan, Y**. 2001: The emergence of a twisted Ω-tube into the solar atmosphere, *Ap. J.*, 554, L111.

2.25. Fong, B., B.C. Low, and **Y. Fan** 2002: Quiescent solar prominences and magnetic-energy storage, *Ap. J.*, 571, 987.

2.26. **Fan, Y**., W. P. Abbett, and G. H. Fisher 2003: The dynamic evolution of twisted magnetic flux tubes in a 3D convecting flow. I. uniformly buoyant horizontal tubes, *Ap. J.,* 582, 1206.

2.27. **Fan, Y**., and S. E. Gibson 2003: The emergence of a twisted magnetic flux tube into a pre-existing coronal arcade, *Ap. J.,* 589, L105.

2.28. Low, B.C., B. Fong, and **Y. Fan** 2003: The mass of a solar quiescent prominence, *Ap. J.,* 594, 1060.

2.29. **Fan, Y**., and S. E. Gibson 2004: Numerical simulations of three-dimensional coronal magnetic fields resulting from the emergence of twisted magnetic flux tubes, *Ap. J.,* 609, 1123.

2.30. Manchester, W., T. Gombosi, D. DeZeeuw, and **Y. Fan** 2004: Eruption of a buoyantly emerging magnetic flux rope, *Ap. J.,* 610, 588.

2.31. Abbett, W. P., G. H. Fisher, **Y. Fan**, and D. J. Bercik 2004: The dynamic evolution of twisted magnetic flux tubes in a 3D convecting flow II: turbulent pumping and the cohesion of Omega-loops, *Ap. J.*, 612, 557.

2.32. **Fan, Y**. 2004: Magnetic fields in the solar convection zone, *Living Rev. Solar Phys.*, **1**, 1., URL: http://www.livingreviews.org/lrsp-2004-1

2.33. Gibson, S. E., **Y. Fan**, C. Mandrini, G. Fisher, and P. Demoulin 2004: Observational consequences of a magnetic flux rope emerging into the corona, *Ap. J.*, 617, 600.

2.34. Leka, K. D., **Y. Fan**, G. Barnes 2005: On the availability of sufficient twist in solar active regions to trigger the kink instability, *Ap. J.*, 626, 1091.

2.35. **Fan, Y**. 2005: Coronal mass ejections as loss of confinement of kinked magnetic flux ropes, *Ap. J.*, **630**, 543.

2.36. Gibson, S. E., and **Y. Fan** 2006: The partial expulsion of a magnetic flux rope, *Ap. J.*, 637, L65.

2.37. **Fan, Y**., and S. E. Gibson 2006: On the nature of the X-ray bright core in a stable filament channel, *Ap. J.*, 641, L149.

2.38. Gibson, S. E., and **Y. Fan** 2006: Coronal prominence structure and dynamics: a magnetic flux rope interpretation, *JGR*, 111, A12103, doi:10.1029/2006JA011871

2.39. Li, J., T. Amari, and **Y. Fan** 2007: Resolution of the 180 degree ambiguity in inverse horizontal magnetic field configurations, *Ap. J.*, 654, 675.

2.40. **Fan, Y**., and S. E., Gibson 2007: Onset of coronal mass ejections due to loss of confinement of coronal flux ropes, *Ap. J.*, 668, 1232.

2.41. **Fan, Y**. 2008: The three-dimensional evolution of buoyant magnetic flux tubes in the solar convective envelope, *Ap. J.*, 676, 680.

2.42. Fuller, J., S. E. Gibson, G. De Toma, and **Y. Fan** 2008: Observing the unobservable? Modeling coronal cavity densities, *Ap. J.*, 678. 515.

2.43. Gibson, S. E., and **Y. Fan** 2008: Partially ejected flux ropes: Implications for interplanetary coronal mass ejections, *JGR,* 113, A09103.

2.44. **Fan, Y**. 2009: The emergence of a twisted flux tube into the solar atmosphere: sunspot rotation and formation of a coronal flux rope, *Ap. J.*, 697, 1529.

2.45. Malanushenko, A., D. W. Longcope, **Y. Fan**, and S.E. Gibson 2009: Additive self helicity as a kink model threshold, *Ap. J.*, 702, 580.

2.46. Cottaar, M., and **Y. Fan** 2009: A model of coronal streamers with underlying flux ropes, *Ap. J.*, 704, 576.

2.47. **Fan, Y**., D. Alexander, and L. Tian 2009: On the origin of the asymmetric helicity injection in emerging active regions, *Ap. J.,* 707, 604.

2.48. **Fan, Yuhong** 2009: Magnetic fields in the solar convection zone, *Living Rev. Solar Phys.*, **6**, 4., URL: http://www.livingreviews.org/lrsp-2009-4

2.49. **Fan, Y**. 2010: On the eruption of coronal flux ropes, *Ap. J.*, 719, 728.

2.50. Birch, A. C., D. C. Braun, and **Y. Fan** 2010: An estimate of the detectability of rising flux tubes, *Ap. J.*, 723, L190

2.51 Li, Y., Jing, J., **Fan, Y**., and Wang, H. 2011: Comparison between observation and simulation of magnetic field change associated with flares, *Ap. J.*, 727, L19

2.52 **Fan, Y**. 2011: An MHD Model of the December 13 2006 Eruptive Flare, *Ap. J.*, 740**,** 68

2.53 Weber, M., **Fan, Y**., and Miesch, M. 2011: The Rise of Active Region Flux Tubes in the Turbulent Solar Convective Envelope, *Ap. J.*, 741**,** 11

2.54 Hotta, H., Rempel, M., Yokoyana, T., Iida, Y., and **Fan, Y**. 2012: Numerical Calculation of Convection with Reduced Speed of Sound Technique, *Astron*. *Astrophys*., 539, A30

2.55 **Fan, Y**. 2012: Thermal signatures of tether-cutting reconnections in pre-eruption coronal flux ropes: hot central voids in coronal cavities, *Ap. J.*, 758, 60

2.56 Weber, M.A., **Fan, Y**., and Miesch, M.S. 2013, Comparing simulations of rising flux tubes through the solar convection zone with observations of solar active regions: constraining the dynamo field strength, *Sol. Phys.*, 287, 239

2.57 Rachmeler, L. A., S. E. Gibson, J. Dove, C. R. DeVore, and **Y. Fan** 2013: Polarimetric properties of flux ropes and sheared arcades in coronal prominence cavities, *Sol. Phys*., 288, 617

2.58 Urszula Bak-Steslicka, Sarah E. Gibson, **Yuhong Fan**, Christian Bethge, Blake Forland, and Laurel Rachmeler 2013: "The Magnetic Structure of Solar Prominence Cavities: New observable revealed by coronal magnetometry", *Ap. J.,* 770, L28

2.59 Weber, M. A., **Fan, Y**., and Miesch, M. S. 2013: "A Theory on the Convective Origin of Active Longitudes on Solar-Like Stars", *Ap. J.*, 770, 249

2.60 Chatterjee, P. and **Fan, Y**. 2013: "Simulation of homologous and cannibalistic CMEs produced by the emergence of a twisted flux rope into the Corona", *Ap. J.*, 778, L8

2.61 Forland, B. F., S. E. Gibson, J. B. Dove, L. A. Rachmeler, and **Y. Fan** 2013: Coronal Cavity Survey: Morphological Clues to Eruptive Magnetic Topologies, *Sol. Phys*., 288, 603

2.62 **Fan, Y.**, and Fang, F. 2014: A simulation of convective dynamo in the solar convective envelope: maintenance of the solar-like differential rotation and emerging flux, *Ap. J.,* 789, 35.

2.63 Fang, F., **Fan, Y.**, and McIntosh, S. W. 2014: Rotating Solar Jets in Simulations of Flux Emergence with Thermal Conduction, *Ap. J.*, 789, L19.

2.64 Weber, M. A., and **Fan, Y.** 2015: Effects of Radiative Diffusion on Thin Flux Tubes in Turbulent Solar-like Convection, *Sol. Phys.*, 290, 1295.

2.65 Fang, F., and **Fan, Y.** 2015: δ-Sunspot Formation in Simulation of Active-region-scale Flux Emergence, *Ap. J.*, 806, 79.

2.66 Takasao, Shinsuke, **Fan, Yuhong**, Cheung Mark, and Kazunari Shibata 2015: Numerical Study of Emergence of Kinked Flux Tubes for Understanding of Possible Origin of δ-Spot Regions, *Ap. J.*, 813, 112, 10.1088/0004-637X/813/2/112

2.67 **Fan, Yuhong** and Fang, Fang 2016: Differential Rotation in Solar Convective Dynamo Simulations, *Advances in Space Research*, 58, 1497-1506, doi:10.1016/j.asr.2015.12.039

2.68 Sarah Gibson, Therese Kucera, Stephen M White, James Dove, **Yuhong Fan**, Blake Forland, Laurel Rachmeler, Cooper Downs, Katharine Reeves 2016, FORWARD: A toolset for multiwavelength coronal magnetometry, *Front. Astron. Space Sci*., 15 March 2016, http://dx.doi.org/10.3389/fspas.2016.00008

2.69 **Fan, Yuhong** 2016: Modeling the initiation of the 2006 December 13 coronal mass ejection in AR 10930: the structure and dynamics of the erupting flux rope, *Ap. J.*, 824,

93, http://dx.doi.org/10.3847/0004-637X/824/2/93

2.70 Kevin Dalmasse, Douglas W. Nychka, Sarah E. Gibson, **Yuhong Fan**, and Natasha Flyer 2016: ROAM: A Radial-Basis-Function Optimization Approximation Method for Diagnosing the Three-Dimensional Coronal Magnetic Field, *Front. Astron. Space Sci.*, 26 July 2016, http://dx.doi.org/10.3389/fspas.2016.00024

2.71 Tomczyk, S. Landi, E.; Burkepile, J. T. Casini, R. DeLuca, E. E. **Fan, Y.** Gibson, S. E. Lin, H. McIntosh, S. W. Solomon, S. C. Toma, G., Wijn, A. G., and Zhang, J. 2016: Scientific objectives and capabilities of the Coronal Solar Magnetism Observatory, *JGR*, 121, 7470-7487, http://dx.doi.org/10.1002/2016JA022871

2.71 **Fan, Yuhong** 2017: "MHD simulations of the eruption of coronal flux ropes under coronal streamers", *Ap. J.*, 844, 26, https://doi.org/10.3847/1538-4357/aa7a56

2.72 Chen, F., Rempel, M., and **Fan, Y.** 2017: Emergence of magnetic flux generated in a solar convective dynamo. I: Formation of sunspots and active regions, and origin of their asymmetries, *Ap. J.*, 846, 149, http://dx.doi.org/10.3847/1538-4357/aa85a0

2.73 **Fan, Yuhong** 2018: MHD Simulation of Prominence Eruption, *Ap. J.*, 862, 54, https://doi.org/10.3847/1538-4357/aaccee

2.74 **Fan, Yuhong**, Gibson, S. E., and Tomczyk, S. 2018: The eruption of a prominence carrying coronal flux rope: forward synthesis of the magnetic field strength measurement by the COronal Solar Magnetism Observatory Large Coronagraph, *Ap. J.*, 866, 57, https://doi.org/10.3847/1538-4357/aadd0e

Section 3. Other External Refereed Publications

3.1. Linton, M. G., G. H. Fisher, R. B. Dahlburg, **Y. Fan**, and D. W. Longcope 2001: Multi-mode kink instability as a mechanism for δ-spot formation, *AdSpR*, **26**, 1781.

3.2. **Fan, Y**., and B. C. Low 2003: Dynamics of CME driven by a buoyant prominence flux tube, in Current Theoretical Models and Future High Resolution Solar Observations: Preparing for ATST, eds. A. A. Pevtsov and H. Uitenbroek, *ASP Conference Series* Vol.**286**, p.347.

3.3. Zweibel, E. G., F. Heitsch, and **Y. Fan** 2003: Numerical simulations of magnetic fields in astrophysical turbulence, in Turbulence and Magnetic Fields in Astrophysics, eds. E. Falgarone & T. Passot, *Springer Lecture Notes in Physics*, Vol.**614**, p.101.

3.4. Gibson, S. E., **Y. Fan**, T. Toeroek, and B. Kliem 2006: The evolving sigmoid: evidence for magnetic flux ropes in the corona before, during and after CMEs, in Solar Dynamics and its Effects on the Heliosphere and Earth, eds. D. Baker, B. Klecker, S. Schwarts, R. Schwenn, and R. von Steiger, *Space Science Reviews*, Vol.**124**, p.131.

3.5. **Fan, Y**. 2011: Dynamics of active region flux tubes in the solar convection zone, in proceedings of the First Asia-Pacific Solar Physics Meeting, ASI Conference Series, Vol. 2, pp 81-90 Edited by Arnab Rai Choudhuri & Dipankar Banerjee, http://adsabs.harvard.edu/abs/2011ASInC...2...81F

3.6 Komm, R., de Moortel, I, **Fan, Yuhong**, Ilonidis, S., and Steiner, O. 2015: Sub-photosphere to Solar Atmosphere Connection, Chap. 7 in Helioseismology and Dynamics of the Solar Interior, *Space Sciences Reviews*, Volume 196, Issue 1, pp 167-199, http://link.springer.com/article/10.1007%2Fs11214-013-0023-5

3.7 **Fan, Yuhong** 2015: MHD Equilibria and Triggers for Prominence Eruption, in Solar Prominences, eds. Vial, J.-C. and Engvold, O., *Astrophysics and Space Science Library*, Volume 415., p. 297, Springer International Publishing Switzerland, http://link.springer.com/chapter/10.1007%2F978-3-319-10416-4_12

Section 4. Paper Submitted to Refereed Journals/Papers in Preparation

4.1 **Fan, Yuhong** and Liu, T. 2019, MHD simulations of prominence-cavity system, *Frontiers in Astronomy and Space Sciences*, submitted.

Section 6. Non-Refereed Publications

6.1. Canfield, R. C., **Y. Fan**, K. D. Leka, A. N. McClymont, and J. P. Wuelser 1991: Currents and flares in a highly nonpotential active region, in *Solar Polarimetry, Proc. of the 11th NSO/SP Summer Workshop*, ed.: November, L.J., 296.

6.2. **Fan, Y**., G. H. Fisher, and E. E. DeLuca 1993: The evolution of anchored magnetic flux loops in the convective envelope of the sun, in GONG 1992: Seismic Investigation of the Sun and the Stars, ed. T.M. Brown, *ASP Conf. Ser.*, (San Francisco: ASP), 42, 89.

6.3. Fisher, G. H., **Y. Fan**, E. E. DeLuca, and A. N. McClymont 1994: Models of rising active region flux tubes, in Solar Active Region Evolution: Comparing Models with Observations, eds. K.S. Balasubramaniam and G.W. Simon, *ASP Conf. Ser.*, (San Francisco: ASP), 68, 109.

6.4. Fisher, G. H., **Y. Fan**, D. W. Longcope. and M. G. Linton 1996: The dynamics of magnetic flux tubes in the solar convection zone – a study of active region formation, in *Proc. of the IAU Colloquium* No.153, ed.: Y. Uchida, T. Kosugi, and H. S. Hudson (Kluwer Academic Publishers), p.329.

6.5. Fisher G. H., D. W. Longcope, M. G. Linton, **Y. Fan**, and A. A. Pevtsov 1999: The origin and role of twist in active regions, in Stellar Dynamos: Nonlinearity and Chaotic Flows, ed. M. Nunez and A. Ferriz-Mas, *P.A.S.P. Conf. Series*, Vol.178, p35.

6.6. Abbett, W. P., G. H. Fisher, and **Y. Fan** 2001: The emergence of magnetic flux in active regions, in Recent Insights into the Physics of the Sun and Heliosphere -- Highlights from SOHO and Other Space Missions, *IAU Symposium*, Vol.203, p. 225, eds. P. Brekke, B. Fleck, and J.B. Gurman, Astronomical Society of the Pacific (San Francisco).

6.7. **Fan, Y**. 2001: Formation of arching flux tubes at the base of the solar convection zone, in Recent Insights into the Physics of the Sun and Heliosphere -- Highlights from SOHO and Other Space Missions*, IAU Symposium*, Vol.203, p. 273, eds. P. Brekke, B. Fleck, and J.B. Gurman, Astronomical Society of the Pacific (San Francisco).

6.8. Gibson, S.E., B. C. Low, K. D. Leka, **Y. Fan**, and L. Fletcher 2002: Magnetic flux ropes: would we know one if we saw one, in Magnetic Coupling of the Solar Atmosphere, Proc. of IAU Colloquium 188, ESA SP-505, p.265.

6.9. **Fan, Y**. 2004: Dynamics of emerging flux tubes, in The Solar-B Mission and the Forefront of Solar Physics, Proc. of the 5th Solar-B Science Meeting, eds. T. Sakurai and T. Sekii, *ASP Conference Series*, Vol.325, p.47.

6.9. **Fan, Y**., and S. E. Gibson 2005: Evolution of twisted magnetic flux ropes emerging into the solar corona, in Proceedings of Solar Wind 11 / SOHO 16, Connecting Sun and Heliosphere, Eds. T. Zurbuchen, and B. Fleck, ESA SP-592, p.241.

6.10. **Fan, Y**., S. E. Gibson, and W. Manchester 2005: The emergence and evolution of twisted Magnetic Flux Ropes in the solar corona, in Proceedings of the International Scientific Conference on Chromospheric and Coronal Magnetic Fields, Eds. D. Innes, A. Lagg, S. Solanki, D. Danesy, ESA SP-596, Published on CDROM, p.26.

6.11. Gibson, S. E. and **Y. Fan** 2006: Partially-ejected flux ropes: implications for space weather, in Solar Activity and its Magnetic Origin, proceedings IAU Symposium No. 233, eds. V. Bothmer and A. A. Hady, (Cambridge University Press), p.319-p.326.

6.12. **Fan, Y**. 2009: Modeling the Subsurface Evolution of Active-Region Flux Tubes, in Solar-Stellar Dynamos as Revealed by Helio- and Asteroseismology, ASP Conference Series, Vol. 416, Eds. M. Dikpati, T. Arentoft, I. Gonz´alez Hern´andez, C. Lindsey and F. Hill, p.489.

6.13. Li, Yixuan, Ju Jing, **Yuhong Fan**, and Haimin Wang 2011: Study of the change of surface magnetic field associated with flares, in The Physics of Sun and Star Spots, Proceedings of the International Astronomical Union, IAU Symposium, Volume 273, p. 417-421

6.14. **Fan, Y**., Featherstone, N., and Fang, F. 2014: "Three-Dimensional MHD Simulations of Emerging Active Region Flux in a Turbulent Rotating Solar Convective Envelope: the Numerical Model and Initial Results", http://arxiv.org/abs/1305.6370