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### 全部发表论文成果

- ▶ Cao, X., Z. Y. Pu, A. M. Du, S. Tian, X. G. Wang, C. J. Xiao, H. U. Frey, M. V. Kubyshkina, V. M. Mishin, S. Y. Fu, L. Xie, and Q. G. Zong, **Auroral streamer simplification for the substorm progression on September 14, 2004**, *Planetary and Space Science* [2012]
- ▶ Cao, X., Z. Y. Pu, A. M. Du, V. M. Mishin, X. G. Wang, C. J. Xiao, T. L. Zhang, V. Angelopoulos, J. P. McFadden, and K. H. Glassmeier, **On the retreat of near-Earth neutral line during substorm expansion phase: a THEMIS case study during the 9 January 2008 substorm**, *Ann. Geophys.* [2012]
- ▶ Chen, B., W. Xu, G. Chen, A. Du, Y. Wu, X. Liu, **Latitudinal shift and tilt of the ring current during magnetic storms**, *Chinese Science Bulletin* [2009]
- ▶ Chen, Y., L. Liu, and W. Wan, **Does the F10.7 index correctly describe solar EUV flux during the deep solar minimum of 2007 - 2009?**, *J. Geophys. Res.* [2011]
- ▶ Chen, Y., L. Liu, and W. Wan, **The discrepancy in solar EUV-proxy correlations on solar cycle and solar rotation timescales and its manifestation in the ionosphere**, *J. Geophys. Res.* [2012]
- ▶ Chen, Y., L. Liu, H. Le, **Solar activity variations of nighttime ionospheric peak electron density**, *J. Geophys. Res.* [2008]
- ▶ Chen, Y., L. Liu, W. Wan, and Z. Ren, **Equinoctial asymmetry in solar activity variations of NmF2 and TEC**, *Ann. Geophys.* [2012]
- ▶ Chen, Y., L. Liu, W. Wan, X. Yue, S.-Y. Su, **Solar activity dependence of the topside ionosphere in low latitudes**, *J. Geophys. Res.* [2009]
- ▶ Chen, Yiding, and Libo Liu, **Further study on the solar activity variation of daytime NmF2**, *Journal of Geophysical Research* [2010]
- ▶ Ding, F., W. Wan, B. Ning, B. Zhao, Q. Li, R. Zhang, B. Xiong, and Q. Song, **Two-dimensional imaging of large-scale traveling ionospheric disturbances over China based on GPS data**, *J. Geophys. Res.* [2012]
- ▶ Ding, F., W. Wan, B. Ning, B. Zhao, Q. Li, Y. Wang, L. Hu, R. Zhang, and B. Xiong, **Observations of poleward-propagating large-scale traveling ionospheric disturbances in southern China**, *Ann. Geophys.*, [2013]
- ▶ Ding, F., W. Wan, G. Xu, T. Yu, G. Yang, and J. Wang, **Climatology of medium - scale traveling ionospheric disturbances observed by a GPS network in central China**, *J. Geophys. Res.* [2011]

- Ding, F., W. Wan, L. Liu, E. L. Afraimovich, S. Voeykov, and N. Perevalova, **A statistical study of large scale traveling ionospheric disturbances observed by GPS TEC during major magnetic storms over the years 2003-2005**, *J. Geophys. Res.* [2008]
- Ding, Feng, Weixing Wan, Baiqi Ning, Libo Liu, Huijun Le, Guirong Xu, Min Wang, Guozhu Li, Yiding Chen, Zhipeng Ren, Bo Xiong, Lianhuan Hu, Xinan Yue, Biqiang Zhao, Fengqin Li, Min Yang, **GPS TEC response to the 22 July 2009 total solar eclipse in East Asia**, *Journal of Geophysical Research* [2010]
- Du, A. M., B. T. Tsurutani, and W. Sun, **Solar wind energy input during prolonged, intense northward interplanetary magnetic fields: A new coupling function**, *J. Geophys. Res.* [2011]
- Du, A. M., B. T. Tsurutani, and W. Sun, **Comments on "Interplanetary and geomagnetic parameters during January 16 – 26, 2005" by R.P.Kane**, *Planetary and Space Science* [2012]
- Du, A. M., et al., **Fast tailward flows in the plasma sheet boundary layer during a substorm on 9 March 2008: THEMIS observations**, *J. Geophys. Res.* [2011]
- Du, A. M., W. Sun, B. T. Tsurutani, R. N. Boroyev, A. V. Moiseyev, **Observations of dawn – dusk aligned polar cap aurora during the substorms of January 21, 2005**, *Planetary and Space Science* [2011]
- Du, A. M., Wen-Yao Xu, W. Sun, **Experimental evidence of direct penetration of upstream ULF waves from the solar wind into the magnetosphere during the strong magnetic storm of November 9, 2004**, *Planetary and Space Science* [2010]
- Du, Aimin, Mingyu Wu, Quanming Lu, Can Huang, Shui Wang, **Transverse instability and magnetic structures associated with electron phase space holes**, *Physics of Plasma* [2011]
- Gao, Q., L. Liu, B. Zhao., W. Wan, M. L. Zhang, B. Ning, **Statistical study of the storm effects in middle and low latitude ionosphere in the East-Asian sector (in Chinese)**, *Chin. J. Geophys* [2008]
- Guo, J., W. Wan, J. M. Forbes, E. Sutton, R. S. Nerem, S. Bruinsma, **Interannual and latitudinal variability of the thermosphere density annual harmonics**, *J. Geophys. Res.* [2008]
- Han, X. H., and W. X. Wan, **Ionogram inversion for MARSIS topside sounding**, *Earth Planets Space* [2012]
- He, H.-Q., and W. Wan, **A direct approach for determining the perpendicular mean free path of solar energetic particles in a turbulent and spatially varying magnetic field**, *ApJS* [2012]
- He, H.-Q., and W. Wan, **A direct method to determine the parallel mean free path of solar energetic particles with adiabatic focusing**, *ApJ* [2012]
- He, M., L. Liu, W. Wan, and B. Zhao, **A study on the nighttime midlatitude ionospheric trough**, *Journal of Geophysical Research-Space Physics* [2011]
- He, M., L. Liu, W. Wan, and Y. Wei, **Strong evidence for couplings between the ionospheric wave-4 structure and atmospheric tides**, *Geophysical Research Letters* [2011]
- He, M., L. Liu, W. Wan, B. Ning, B. Zhao, J. Wen, H. Le, and X. Yue, **A study of the Weddell Sea Anomaly observed by FORMOSAT-3/COSMIC**, *J. Geophys. Res.* [2009]
- He, Maosheng, Libo Liu, Weixing Wan, Jiuhou Lei, Biqiang Zhao, **Longitudinal modulation of the O/N2 column density retrieved from TIMED/GUVI measurement**, *Geophysical Research Letters* [2010]
- Jiang, G., J. Xiong, W. Wan, B. Ning, L. Liu, **Observation of 6.5-day waves in the MLT region over Wuhan**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2008]
- Kil, H., L. J. Paxton, W. K. Lee, Z. Ren, S.-J. Oh, and Y.-S. Kwak, **Is DE2 the source of the ionospheric wave number 3 longitudinal structure?**, *J. Geophys. Res.* [2010]
- Kwak, Y.-S., H. Kil, W. K. Lee, S.-J. Oh, and Z. Ren, **Nonmigrating tidal characteristics in thermospheric neutral mass density**, *J. Geophys. Res.* [2012]
- Le, H., L. Liu, and W. Wan, **An analysis of thermospheric density response to solar flares during 2001 – 2006**, *J. Geophys. Res.* [2012]
- Le, H., L. Liu, and Y. Chen, **Comment on the paper "Total solar eclipse of July 22, 2009: Its impact on the total electron content and ionospheric electron density in the Indian zone" by Sharma et al.**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2011]
- Le, H., L. Liu, H. He, and W. Wan, **Statistical analysis of solar EUV and X-ray flux enhancements induced by solar flares and its implication to upper atmosphere**, *Journal of Geophysical Research-Space Physics* [2011]
- Le, H., L. Liu, J.Y. Liu, B. Zhao, Y. Chen, W. Wan, **The ionospheric anomalies prior to the M9.0 Tohoku-Oki earthquake**, *Journal of Asian Earth Sciences* [2013]
- Le, H., L. Liu, X. Yue, and W. Wan, **The ionospheric behavior in conjugate hemispheres during the 3 October 2005 solar eclipse**, *Ann. Geophys.* [2009]
- Le, H., L. Liu, X. Yue, W. Wan, **The mid-latitude F2 region during solar eclipses: observations and modeling**, *J. Geophys. Res.* [2008]
- Le, H., L. Liu, X. Yue, W. Wan, **The ionospheric responses to the 11 August 1999 solar eclipse: Observations and modeling**, *Ann. Geophys.* [2008]
- Le, H., L. Liu, X. Yue, W. Wan, and B. Ning, **Latitudinal dependence of the ionospheric response to solar eclipses**, *J.*

- ▶ Le, H., L. Liu, Y. Chen, and W. Wan, **Statistical analysis of ionospheric responses to solar flares**, *J. Geophys. Res.* [2013]
- ▶ Le, Huijun, Libo Liu, Feng Ding, Zhipeng Ren, Yiding Chen, Weixing Wan, Baiqi Ning, Guirong Xu, Min Wang, Guozhu Li, Bo Xiong, Lianhuan Hu, **Observations and modeling of the ionospheric behaviors over the east Asia zone during the 22 July 2009 solar eclipse**, *Journal of Geophysical Research* [2010]
- ▶ Li, G. Z., B. Q. Ning, L. B. Liu, W. X. Wan, L. H. Hu, B. Q. Zhao, and A. K. Patra, **Equinoctial and June solstitial F-region irregularities over Sanya**, *Indian Journal of Radio & Space Physics* [2012]
- ▶ Li, G., B. Ning, A. K. Patra, M. A. Abdu, J. S. Chen, L. Liu and L. Hu, **On the linkage of daytime 150-km echoes and abnormal intermediate layer traces over Sanya**, *J. Geophys. Res.* [2013]
- ▶ Li, G., B. Ning, A. K. Patra, W. Wan, and L. Hu, **Investigation of low - latitude E and valley region irregularities: Their relationship to equatorial plasma bubble bifurcation**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Li, G., B. Ning, B. Zhao, L. Liu, J.Y. Liu, K. Yumoto, **Effects of geomagnetic storm on GPS ionospheric scintillations at Sanya**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2008]
- ▶ Li, G., B. Ning, B. Zhao, L. Liu, W. Wan, F. Ding, J. S. Xu, J.Y. Liu, and K. Yumoto, **Characterizing the 10 November 2004 storm-time middle latitude plasma bubble event in Southeast Asia using multi-instrument observations**, *J. Geophys. Res.* [2009]
- ▶ Li, G., B. Ning, L. Hu, Y.-H. Chu, I. M. Reid, and B. K. Dolman, **A comparison of lower thermospheric winds derived from range spread and specular meteor trail echoes**, *J. Geophys. Res.* [2012]
- ▶ Li, G., B. Ning, L. Liu, B. Zhao, X. Yue, I. S.-Y. Su, S. Venkatraman, **Correlative study of plasma bubbles, evening equatorial ionization anomaly, and equatorial prereversal  $E \times B$  drifts at solar maximum**, *Radio Sci.* [2008]
- ▶ Li, G., B. Ning, L. Liu, W. Wan, and J. Y. Liu, **Effect of magnetic activity on plasma bubbles over equatorial and low-latitude regions in East Asia**, *Ann. Geophysicae* [2009]
- ▶ Li, G., B. Ning, M. A. Abdu, W. Wan, and L. Hu, **Precursor signatures and evolution of post-sunset equatorial spread-F observed over Sanya**, *J. Geophys. Res.* [2012]
- ▶ Li, G., B. Ning, M. A. Abdu, Y. Otsuka, T. Yokoyama, M. Yamamoto, L. Liu, **Longitudinal characteristics of spread F backscatter plumes observed with the EAR and Sanya VHF radar in Southeast Asia**, *J. Geophys. Res.* [2013]
- ▶ Li, G., B. Ning, M. Abdu, X. Yue, L. Liu, W. Wan, and L. Hu, **On the occurrence of post-midnight equatorial F-region irregularities during the June solstice**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Li, Guozhu, Baiqi Ning, Lianhuan Hu, Libo Liu, Xinan Yue, Weixing Wan, Biqiang Zhao, K. Igarashi, Minoru Kubota, Yuichi Otsuka, J. S. Xu, J. Y. Liu, **Longitudinal development of low-latitude ionospheric irregularities during the geomagnetic storms of July 2004**, *Journal of Geophysical Research* [2010]
- ▶ Li, Guozhu, Baiqi Ning, Zhipeng Ren, Lianhuan Hu, **Statistics of GPS ionospheric scintillation and irregularities over polar regions at solar minimum**, *GPS Solutions* [2010]
- ▶ Li, Z., L. Liu, W. Wan, and B. Ning, **Neutral wind-driven gradient drift instability in the low-latitude daytime E region**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Li, Zhijin, Baiqi Ning, **Planetary-scale wave observations over a low-latitude E region using simultaneous observations of VHF radar and ionosonde over Sanya (18.34° N, 109.62° E)**, *Journal of Geophysical Research* [2010]
- ▶ Liu, C., M.-L. Zhang, W. Wan, L. Liu, B. Ning, **Modeling M(3000)F2 based on empirical orthogonal function analysis method**, *Radio Sci.* [2008]
- ▶ Liu, J., B. Zhao, L. Liu, **Time delay and duration of ionospheric total electron content responses to geomagnetic disturbances**, *Annales Geophysicae* [2010]
- ▶ Liu, J., L. B. Liu, B. Q. Zhao, W. X. Wan, and Y. D. Chen, **Empirical modeling of ionospheric F2 layer critical frequency over Wakkanai under geomagnetic quiet and disturbed conditions**, *Sci. China- Tech. Sci.* [2012]
- ▶ Liu, J., L. Liu, B. Zhao, and W. Wan, **Influence of interplanetary solar wind sector polarity on the ionosphere**, *J. Geophys. Res.* [2012]
- ▶ Liu, J., L. Liu, B. Zhao, J. Lei, and W. Wan, **On the relationship between the postmidnight thermospheric equatorial mass anomaly and equatorial ionization anomaly under geomagnetic quiet conditions**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Liu, J., L. Liu, B. Zhao, J. Lei, J. P. Thayer, and R. L. McPherron, **Superposed epoch analyses of thermospheric response to CIRs: Solar cycle and seasonal dependencies**, *J. Geophys. Res.* [2012]
- ▶ Liu, J., L. Liu, B. Zhao, Y. Wei, L. Hu, and B. Xiong, **High-speed stream impacts on the equatorial ionization anomaly region during the deep solar minimum year 2008**, *J. Geophys. Res.* [2012]
- ▶ Liu, Jing, Libo Liu, Biqiang Zhao, Weixing Wan, Roderick A. Heelis, **Response of the topside ionosphere to recurrent geomagnetic activity**, *Journal of Geophysical Research* [2010]
- ▶ Liu, L. and Y. Chen, **Statistical analysis of solar activity variations of total electron content derived at Jet Propulsion Laboratory from GPS observations**, *J. Geophys. Res.* [2009]
- ▶ Liu, L. B., W. X. Wan, Y. D. Chen, H. J. Le, and B. Q. Zhao, **Recent progresses on ionospheric climatology investigations**, *Chin. J. Space Sci.* [2012]

- Liu, L., B. Zhao, W. Wan, B. Ning, M.-L. Zhang, and M. He, **Seasonal variations of the ionospheric electron densities retrieved from Constellation Observing System for Meteorology, Ionosphere, and Climate mission radio occultation measurements**, *J. Geophys. Res.* [2009]
- Liu, L., H. Le, Y. Chen, M. He, W. Wan, and X. Yue, **Features of the middle and low latitude ionosphere during solar minimum as revealed from COSMIC radio occultation measurements**, *Journal of Geophysical Research-Space Physics* [2011]
- Liu, L., J. Yang, H. Le, Y. Chen, W. Wan, and C.-C. Lee, **Comparative study of the equatorial ionosphere over Jicamarca during recent two solar minima**, *J. Geophys. Res.* [2012]
- Liu, L., M. He, W. Wan, M.-L. Zhang, **Topside ionospheric scale heights retrieved from Constellation Observing System for Meteorology, Ionosphere, and Climate radio occultation measurements**, *J. Geophys. Res.* [2008]
- Liu, L., W. Wan, B. Ning, and M.-L. Zhang, **Climatology of the mean total electron content derived from GPS global ionospheric maps**, *J. Geophys. Res.* [2009]
- Liu, L., W. Wan, M.-L. Zhang, B. Zhao, **Case study on total electron content enhancements at low latitudes during low geomagnetic activities before the storms**, *Ann. Geophys.* [2008]
- Liu, L., W. Wan, M.-L. Zhang, B. Zhao, B. Ning, **Prestorm enhancements in NmF2 and total electron content at low latitudes**, *J. Geophys. Res.* [2008]
- Liu, L., W. Wan, Y. Chen, and H. Le, **Solar activity effects of the ionosphere: A brief review**, *Chinese Science Bulletin* [2011]
- Liu, L., Y. Chen, H. Le, B. Ning, W. Wan, J. Liu, L. Hu, **A case study of post-midnight enhancement in F-layer electron density over Sanya of China**, *J. Geophys. Res.* [2013]
- Liu, L., Y. Chen, H. Le, V. I. Kurkin, N. M. Polekh, and C. C. Lee, **The ionosphere under extremely prolonged low solar activity**, *Journal of Geophysical Research-Space Physics* [2011]
- Liu, Libo, Maosheng He, Xinan Yue, Baiqi Ning, Weixing Wan, **Ionosphere around equinoxes during low solar activity**, *Journal of Geophysical Research* [2010]
- Liu, Libo, Weixing Wan, Baiqi Ning, Man-Lian Zhang, Maosheng He, Xinan Yue, **Longitudinal behaviors of the IRI-B parameters of the equatorial electron density profiles retrieved from FORMOSAT-3/COSMIC radio occultation measurements**, *Advances in Space Research* [2010]
- Lu, L., L. Liu, **Evaluation of the prediction ability of the NeQuick model on foF2 over Asia-Australic sector (in Chinese)**, *Chin. J. Space Sci* [2008]
- Luo, H., J. Xiong, W. Wan, **Response of middle and upper atmosphere to pulse disturbance from lower atmosphere (in Chinese)**, *Chin. J. Space Sci* [2008]
- Luo, H., G. X. Chen, A. M. Du, **Multipoint observations of Pi2 pulsations and correlation with dynamic processes in the near-Earth magnetotail on March 18, 2009**, *SCIENCE CHINA-Earth Sciences* [2013]
- Luo, H., G. X. Chen, A. M. Du, V. Angelopoulos, W. Y. Xu, X. D. Zhao, and Y. Wang, **THEMIS multipoint observations of Pi2 pulsations inside and outside the plasmasphere**, *Journal of Geophysical Research-Space Physics* [2011]
- Luo, H., G. X. Chen, A. M. Du, W. Y. Xu, **Solar wind dependence of energy coupling between solar wind and magnetosphere during intense northward IMF's**, *Planetary and Space Science* [2013]
- Mao, T., W. Wan, X. Yue, L. Sun, B. Zhao, J. Guo, **An empirical orthogonal function model of total electron content over China**, *Radio Sci.* [2008]
- Mei, B., W. Wan, **An empirical orthogonal function (EOF) analysis of ionospheric electron density profiles based on the observation of incoherent scatter radar at Millstone Hill (in Chinese)**, *Chin. J. Space Sci* [2008]
- Mu, WenFeng, WeiXing Wan, ZhiPeng Ren, and JianGang Xiong, **Correlation between ionospheric longitudinal harmonic components and upper atmospheric tides**, *Chinese Science Bulletin* [2010]
- Ning, B. Q., L. H. Hu, G. Z. Li, L. B. Liu, and W. X. Wan, **The first time observations of low-latitude ionospheric irregularities by VHF radar in Hainan**, *Sci. China- Tech. Sci.* [2012]
- Ou, J. M., A. M. Du, W. Y. Xu, et al., **The Legendre polynomials modeling method of small-scale geomagnetic fields**, *Chinese J. Geophys. (in Chinese)* [2012]
- OU, J., A. Du, W. Xu, **A high resolution lithospheric magnetic field model over China**, *SCIENCE CHINA-Earth Sciences* [2013]
- Ren, Z. P., W. X. Wan, L. B. Liu, and H. J. Le, **TIME3D-IGGCAS:A new three-dimension mid- and low-latitude theoretical ionospheric model in realistic geomagnetic fields**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2012]
- Ren, Z. P., W. X. Wan, L. B. Liu, and J. G. Xiong, **Simulated longitudinal variations in the E-region plasma density induced by non-migrating tides**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2012]
- Ren, Z., W. Wan, and L. Liu, **A new global coupled ionosphere- thermosphere-electrodynamics model**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2009]
- Ren, Z., W. Wan, J. Xiong, and L. Liu, **Simulated equinoctial asymmetry of the ionospheric vertical plasma drifts**, *J. Geophys. Res.* [2012]

- ▶ Ren, Z., W. Wan, L. Liu, and J. Xiong, **Intra-annual variation of wavenumber-4 structure of vertical  $E \times B$  drifts in the equatorial ionosphere seen from ROCSAT-1**, *J. Geophys. Res.* [2009]
- ▶ Ren, Z., W. Wan, L. Liu, and J. Xiong, **Simulated longitudinal variations in the lower thermospheric nitric oxide induced by non-migrating tides**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Ren, Z., W. Wan, L. Liu, B. Zhao, Y. Wei, X. Yue, R. A. Heelis, **Longitudinal variations of electron temperature and total ion density in the sunset equatorial topside ionosphere**, *Geophys. Res. Lett.* [2008]
- ▶ Ren, Z., W. Wan, L. Liu, H. Le, and M. He, **Simulated midlatitude summer nighttime anomaly in realistic geomagnetic fields**, *J. Geophys. Res.* [2012]
- ▶ Ren, Z., W. Wan, L. Liu, R. A. Heelis, B. Zhao, Y. Wei, and X. Yue, **Influences of geomagnetic fields on longitudinal variations of vertical plasma drifts in the presunset equatorial topside ionosphere**, *J. Geophys. Res.* [2009]
- ▶ Ren, Z., W. Wan, L. Liu, Y. Chen, and H. Le, **Equinoctial asymmetry of the ionospheric vertical plasma drifts and its effect on the F region plasma density**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Ren, Z., W. Wan, Y. Wei, L. Liu, T. Yu, **A theoretical model for mid- and low-latitude ionospheric electric fields in realistic geomagnetic fields**, *Chin. Sci. Bull.* [2008]
- ▶ Ren, Zhipeng, Weixing Wan, Jiangang Xiong, Libo Liu, **Simulated wave number 4 structure in equatorial F-region vertical plasma drifts**, *Journal of Geophysical Research* [2010]
- ▶ Rong, Z. J., C. Shen, A. A. Petrukovich, W. X. Wan, Z. X. Liu, **The analytic properties of the flapping current sheets in the earth magnetotail**, *Planetary and Space Science* [2010]
- ▶ Rong, Z. J., W. X. Wan, C. Shen, T. L. Zhang, A. T. Y. Lui, Y. Wang, M. W. Dunlop, Y. C. Zhang, and Q.-G. Zong, **Method for inferring the axis orientation of cylindrical magnetic flux rope based on single-point measurement**, *J. Geophys. Res.* [2013]
- ▶ Rong, Z. J., W. X. Wan, C. Shen, X. Li, M. W. Dunlop, A. A. Petrukovich, L.-N. Hau, T. L. Zhang, H. Rème, A. M. Du, and E. Lucek, **Profile of strong magnetic field By component in magnetotail current sheets**, *J. Geophys. Res.* [2012]
- ▶ Rong, Z. J., W. X. Wan, C. Shen, X. Li, M. W. Dunlop, A. A. Petrukovich, T. L. Zhang, and E. Lucek, **Statistical survey on the magnetic structure in magnetotail current sheets**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Rong, ZhaoJin, Chao Shen, E. Lucek, A. Balogh, Li Yao, **Statistical survey on the magnetic field in magnetotail current sheets: Cluster observations**, *Chinese Science Bulletin* [2010]
- ▶ She, C., W. Wan, G. Xu, **Climatological analysis and modeling of the ionospheric global electron content**, *Chin. Sci. Bull.* [2008]
- ▶ Shen, C., Z. J. Rong, and M. Dunlop, **Determining the full magnetic field gradient from two spacecraft measurements under special constraints**, *J. Geophys. Res.* [2012]
- ▶ Shen, C., Z. J. Rong, M. W. Dunlop, Y. H. Ma, X. Li, G. Zeng, G. Q. Yan, W. X. Wan, Z. X. Liu, C. M. Carr, and H. Rème, **Spatial gradients from irregular, multiple-point spacecraft configurations**, *J. Geophys. Res.* [2012]
- ▶ Song, Q., F. Ding, W. Wan, B. Ning, and L. Liu, **Global propagation features of large-scale traveling ionospheric disturbances during the magnetic storm of 7~10 November 2004**, *Ann. Geophys.* [2012]
- ▶ Song, Q., F. Ding, W. Wan, B. Ning, B. Zhao, **Monitoring traveling ionospheric disturbances using the GPS network around China during the geomagnetic storm on 28 May 2011**, *SCIENCE CHINA-Earth Sciences* [2013]
- ▶ Song, Q., F. Ding, W. Wan, B. Ning, L. Liu, B. Zhao, Q. Li, and R. Zhang, **Statistical study of large-scale traveling ionospheric disturbances generated by the solar terminator over China**, *J. Geophys. Res.* [2013]
- ▶ Wan, W., **A Review on the Ionospheric Research: Chinese Works During 2006-2008**, *Chin. J. Space Sci* [2008]
- ▶ Wan, W. X., D. Feng, Z. P. Ren, M. L. Zhang, L. B. Liu, and B. Q. Ning, **Modeling the global ionospheric total electron content with empirical orthogonal function analysis**, *Sci. China- Tech. Sci.* [2012]
- ▶ Wan, W., J. Xiong, Z. Ren, L. Liu, M.-L. Zhang, F. Ding, B. Ning, B. Zhao, X. Yue, **Correlation between the ionospheric WN4 signature and the upper atmospheric DE3 tide**, *Journal of Geophysical Research* [2010]
- ▶ Wan, W., L. Liu, X. Pi, M.-L. Zhang, B. Ning, J. Xiong, F. Ding, **Wavenumber-4 patterns of the total electron content over the low latitude ionosphere**, *Geophys. Res. Lett.* [2008]
- ▶ Wan, W., Z. Ren, F. Ding, J. Xiong, L. Liu, B. Ning, B. Zhao, G. Li, and M. -L. Zhang, **A simulation study for the couplings between DE3 tide and longitudinal WN4 structure in the thermosphere and ionosphere**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2012]
- ▶ Wang, R., A. Du, R. Nakamura, Q. Lu, Y. V. Khotyaintsev, M. Volwerk, T. Zhang, E. A. Kronberg, P. W. Daly, and A. N. Fazakerley, **Observation of multiple sub-cavities adjacent to single separatrix**, *Geophys. Res. Lett.* [2013]
- ▶ Wang, Yuan, Hong MingHua, Chen GengXiong, Xu WenYao, Du AiMin, Zhao XuDong, Liu XiaoCan, Luo Hao, **Nightside field-aligned current during the April 6, 2000 superstorm**, *Chinese Science Bulletin* [2010]
- ▶ Wei, Y., M. Hong, W. Wan, A. Du, **A modeling study of interplanetary - equatorial electric field penetration efficiency (in Chinese)**, *Chin. J. Geophys* [2008]
- ▶ Wei, Y., M. Hong, W. Wan, A. Du, J. Lei, B. Zhao, W. Wang, Z. Ren, X. Yue, **Unusually long lasting multiple penetration of interplanetary electric field to equatorial ionosphere under oscillating IMF Bz**, *Geophys. Res. Lett.* [2008]



- ▶ Wei, Y., M. Hong, A. Du, Z. Pu, M. F. Thomsen, Z. Ren, G. D. Reeves, **Coordinated observations of magnetospheric reconfiguration during an overshielding event**, *Geophys. Res. Lett* [2008]
- ▶ Wei, Y., W. Wan, B. Zhao, M. Hong, A. Ridley, Z. Ren, M. Fraenz, E. Dubinin, and M. He, **Solar wind density controlling penetration electric field at the equatorial ionosphere during a saturation of cross polar cap potential**, *J. Geophys. Res.* [2012]
- ▶ Wei, Y., W. Wan, Z. Pu, M. Hong, Q. Zong, J. Guo, B. Zhao, and Z. Ren, **The transition to overshielding after sharp and gradual interplanetary magnetic field northward turning**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Wei, Y., W. Wan, Z. Pu, M. Hong, Q. Zong, J. Guo, B. Zhao, and Z. Ren, **The transition to overshielding after sharp and gradual interplanetary magnetic field northward turning**, *J. Geophys. Res.* [2011]
- ▶ Wei, Y., Z. Pu, M. Hong, Q. Zong, Z. Ren, S. Fu, L. Xie, S. Alex, X. Cao, J. Wang, X. Chu, **Westward ionospheric electric field perturbations on the dayside associated with substorm processes**, *J. Geophys. Res.* [2009]
- ▶ Wei, Yong, QiuGang Zong, ZuYin Pu, WeiXing Wan, JianJun Liu, SuiYan Fu, QuanQi Shi, **Enhanced anti-sunward flow near local noon during a period of horizontal IMF and high solar wind velocity V-Y**, *Chinese Science Bulletin* [2011]
- ▶ Wei, Yong, Zuyin Pu, Minghua Hong, Qiugang Zong, Jianjun Liu, Jianpeng Guo, Aaron Ridley, Weixing Wan, **Long-lasting goodshielding at the equatorial ionosphere**, *Journal of Geophysical Research* [2010]
- ▶ Wu, Q., M. H. Hong, A. M. Du, et al., **Multi-point joint observation of long-time continual Pc5 ULF waves on 3 March 2007**, *Chinese J. Geophys. (in Chinese)* [2012]
- ▶ Xiong, B., W. Wan, L. Liu, P. Withers, B. Zhao, B. Ning, Y. Wei, H. Le, Z. Ren, Y. Chen, M. He, and J. Liu, **Ionospheric response to the X-Class solar flare on 7 September 2005**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Xiong, J. G., W. X. Wan, B. Q. Ning, L. B. Liu, B. Y. Wu, L. H. Hu, and T. Xu, **Seasonal variations of night mesopause temperature in Beijing observed by SATI4**, *Sci. China- Tech. Sci.* [2012]
- ▶ Xiong, J., W. Wan, F. Ding, L. Liu, B. Ning, and X. Niu, **Coupling between mesosphere and ionosphere over Beijing through semidiurnal tides during the 2009 sudden stratospheric warming**, *J. Geophys. Res.* [2013]
- ▶ Xu, G., W. Wan, C. She, L. Dud, **The relationship between ionospheric total electron content (TEC) over East Asia and the tropospheric circulation around the Qinghai-Tibet Plateau obtained with a partial correlation method**, *Adv. Space Res.* [2008]
- ▶ Yang, J., L. B. Liu, Y. D. Chen, and H. J. Le, **Dos the equatorial ionospheric peak electron density really record the lowest during the recent deep sola minimum?**, *Chinese J. Geophys. (in Chinese)* [2012]
- ▶ Yu, Y., W. Wan, B. Ning, L. Liu, Z. Wang, L. Hu, and Z. Ren, **Tidal wind mapping from observations of a meteor radar chain in December 2011**, *J. Geophys. Res.* [2013]
- ▶ Yu, Y., W. Wan, B. Zhao, Y. Chen, B. Xiong, L. Liu, J. Liu, Z. Ren, and M. Li, **Modeling the global NmF2 from the GNSS derived TEC-GIMs**, *Space Weather* [2013]
- ▶ Yue, X., L. Liu, W. Wan, Y. Wei, Z. Ren, **Modeling the effects of secular variation of geomagnetic field orientation on the ionospheric long term trend over the past century**, *J. Geophys. Res.* [2008]
- ▶ Yue, X., W. S. Schreiner, Y. Kuo, B. Zhao, W. Wan, Z. Ren, L. Liu, Y. Wei, J. Lei, S. Solomon, and C. Rocken, **The effect of solar radio bursts on the GNSS radio occultation signals**, *J. Geophys. Res.* [2013]
- ▶ Yue, X., W. Wan, J. Lei, L. Liu, **Modeling the relationship between ExB vertical drift and the time rate of change of hmF2 over the magnetic equator**, *Geophys. Res. Lett* [2008]
- ▶ Yue, X., W. Wan, L. Liu, B. Ning, B. Zhao, M. Zhang, **TIME-IGGCAS model validation: Comparisons with empirical models and observations**, *Sci. China, Ser. E.* [2008]
- ▶ Yue, X., W. Wan, L. Liu, H. Le, Y. Chen, T. Yu, **Development of a middle and low latitude theoretical ionospheric model and an observation system data assimilation experiment**, *Chin. Sci. Bull.* [2008]
- ▶ Zhang, H., et al., **Outward expansion of the lunar wake: ARTEMIS observations**, *Geophys. Res. Lett.* [2012]
- ▶ Zhang, M.-L., W. Wan, L. Liu, and J. K. Shi, **Variability of the behavior of the bottomside (B0, B1) parameters obtained from the ground-based ionograms at China' s low latitude station**, *Adv. Space Res.* [2008]
- ▶ Zhang, M.-L., W. Wan, L. Liu, and B. Ning, **Variability study of the crest-to-trough TEC ratio of the equatorial ionization anomaly around 120° E longitude**, *Adv. Space Res.* [2009]
- ▶ Zhang, M.-L., C. Liu, W. Wan, L. Liu, and B. Ning, **A global model of the ionospheric F2 peak height based on EOF analysis**, *Ann. Geophysicae* [2009]
- ▶ Zhang, Man-Lian, Chunxu Liu, Weixing Wan, Libo Liu, Baiqi Ning, **Evaluation of global modeling of M(3000)F2 and hmF2 based on alternative empirical orthogonal function expansions**, *Advances in Space Research* [2010]
- ▶ Zhang, S.H., A.M. Du, X.S. Feng, X. Cao, Q.M. Lu, L.P. Yang, G.X. Chen, Y. Zhang, **Electron Acceleration in a Dynamically Evolved Current Sheet Under Solar Coronal Conditions**, *Solar Physics* [2013]
- ▶ Zhang, S.H., H. Zhao, A.M. DU, X. Cao, **3-D numerical calculation of magnetic drag parachute**, *Science China* [2013]
- ▶ Zhang, Y. C., C. Shen, Z. X. Liu, Z. J. Rong, T. L. Zhang, A. Marchaudon, H. Zhang, S. P. Duan, Y. H. Ma, M. W. Dunlop, Y. Y. Yang, C. M. Carr, and I. Dandouras, **Two different types of plasmoids in the plasma sheet: Cluster multisatellite analysis application**, *J. Geophys. Res. Space Physics* [2013]

- ▶ Zhang, Y., J. H. Jiang, Z. P. Li, A. M. Du, and X. H. Zhao, **Quantum Symmetry for a System with a Singular Lagrangian Containing Subsidiary Condition**, *International Journal of Theoretical Physics* [2011]
- ▶ Zhang, Y., J. Xiong, L. Liu, and W. Wan, **A global morphology of gravity wave activity in the stratosphere revealed by the 8-year SABER/TIMED data**, *J. Geophys. Res.* [2012]
- ▶ Zhang, Y., A.M. Du, X.S. Feng, W. Sun, Y.D. Liu, C.D. Fry, C.S. Deehr, M. Dryer, B. Zieger, and Y.Q. Xie, **Simulated (STEREO) Views of the SolarWind Disturbances Following the Coronal Mass Ejections of 1 August 2010**, *Solar Phys.* [2013]
- ▶ Zhang, Ying, JingYi Chen, and XueShang Feng, **Predicting the shock arrival time using 1D-HD solar wind model**, *Chinese Science Bulletin* [2010]
- ▶ Zhao B., W. Wan, X. Yue, L. Liu, Z. Ren, M. He, and J. Liu, **Global characteristics of occurrence of an additional layer in the ionosphere observed by COSMIC/FORMOSAT-3**, *Geophysical Research Letters* [2011]
- ▶ Zhao, B., M. Wang, T. Yu, W. Wan, J. Lei, L. Liu, and B. Ning, **Is an unusual large enhancement of ionospheric electron density linked with the 2008 great Wenchuan earthquake?**, *J. Geophys. Res.* [2008]
- ▶ Zhao, B., M. Wang, Y. Wang, Z. Ren, X. Yue, J. Zhu, W. Wan, B. Ning, J. Liu, and B. Xiong, **East-west differences in F-region electron density at midlatitude: Evidence from the Far East region**, *J. Geophys. Res.* [2013]
- ▶ Zhao, B., W. Wan, B. Reinisch, X. Yue, H. Le, J. Liu, and B. Xiong, **Features of the F3 layer in the low - latitude ionosphere at sunset**, *Journal of Geophysical Research-Space Physics* [2011]
- ▶ Zhao, B., W. Wan, J. Lei, Y. Wei, Y. Sahai, and B. Reinisch, **Positive ionospheric storm effects at Latin America longitude during the superstorm of 20 – 22 November 2003: revisit**, *Ann. Geophys.* [2012]
- ▶ Zhao, B., W. Wan, K. Tschu, K. Igarashi, T. Kikuchi, K. Nozaki, S. Watari, G. Li, L. J. Paxton, L. Liu, B. Ning, J.-Y. Liu, S.-Y. Su, B. Harold, **Ionosphere disturbances observed throughout South-East Asia of the superstorm of 20-22 November 2003**, *J. Geophys. Res.* [2008]
- ▶ Zhao, B., W. Wan, L. Liu, and Z. Ren, **Characteristics of the ionospheric total electron content of the equatorial ionization anomaly in the Asian-Australian region during 1996-2004**, *Ann. Geophysicae* [2009]
- ▶ Zhao, B., W. Wan, L. Liu, K. Igarashi, K. Yumoto, and B. Ning, **Ionospheric response to the geomagnetic storm on 13-17 April 2006 in the West Pacific region**, *J. Atmos. Solar-Terr. Phys.* [2009]
- ▶ Zhao, B., W. Wan, L. Liu, K. Igarashi, M. Nakamura, L. Paxton, S.-Y. Su, G. Li, Z. Ren, **Anomalous enhancement of ionospheric electron content in the Asia/Australian region during a geomagnetically quiet day**, *J. Geophys. Res.* [2008]
- ▶ Zhao, Biqiang, Min Wang, Tao Yu, Guirong Xu, Weixing Wan, Libo Liu, **Ionospheric total electron content variations prior to the 2008 Wenchuan Earthquake**, *International Journal of Remote Sensing* [2010]
- ▶ Zhao, X. D., A. M. Du, W. Y. Xu, **The magnetic local time distribution of ring current during the geomagnetic storm**, *Planetary and Space Science* [2013]
- ▶ Zhu, J., B. Zhao, W. Wan, B. Ning, **An investigation of the formation patterns of the ionospheric F3 layer in low and equatorial latitudes**, *Journal of Atmospheric and Solar-Terrestrial Physics* [2013]
- ▶ Zuo, X., W. Wan, **Planetary wave oscillations in sporadic E layer occurrence at Wuhan**, *Earth Planets Space* [2008]
- ▶ Zuo, X., W. Wan, and G. Zhao, **An attempt to infer information on planetary wave by analyzing sporadic E layers observations**, *Earth Planets Space* [2009]
- ▶ 白春华, 徐文耀, 主磁场长期变化十年至百年尺度的周期, *地球物理学报* [2010]
- ▶ 丁锋, 万卫星, 月球电离层探测与研究, *地球化学* [2010]
- ▶ 胡连欢, 宁百齐, 李国主, 赵必强, 吴宝元, 郝喜庆, 暴时低纬电离层不规则体响应特征的多手段观测, *地球物理学报* [2013]
- ▶ 乐新安, 万卫星, 刘立波, 宁百齐, 赵必强, 张满莲, **TIME-IGGCAS模式与经验模式和观测数据的比较**, *中国科学E辑* [2008]
- ▶ 乐新安, 万卫星, 刘立波, 宁百齐, 赵必强, 李国主, 熊波, 基于Gauss-Markov卡尔曼滤波的电离层数值同化现报预报系统的构建——以中国及周边地区为例的观测系统模拟试验, *地球物理学报* [2010]
- ▶ 李国主, 宁百齐, 胡连欢, 李明, 基于三亚VHF雷达的场向不规则体观测研究: 2.东亚低纬电离层E区准周期回波, *地球物理学报* [2013]
- ▶ 刘静, 万卫星, 黄建平, 张学民, 赵庶凡, 智利8.8级地震的震前电子浓度扰动, *地球物理学报* [2011]
- ▶ 刘立波, 万卫星, 陈一定, 乐会军, 评述电离层与太阳活动性关系, *科学通报* [2011]
- ▶ 罗浩, 陈耿雄, 杜爱民, 孙炜, 徐文耀, 张莹, 赵旭东, 王源, 耀斑引发的激波初始速度对激波到达时间预测的影响, *地球物理学报* [2011]
- ▶ 穆文锋, 万卫星, 任志鹏, 熊建刚, 电离层经度变化波数谱成分与高层大气潮汐模的相关性, *科学通报* [2011]
- ▶ 宁百齐, 李国主, 胡连欢, 李明, 基于三亚VHF雷达的场向不规则体观测研究: 1.电离层轳区连续性回波, *地球物理学报* [2013]
- ▶ 任志鹏, 万卫星, 魏勇, 刘立波, 余涛, 基于真实地磁场的中低纬电离层电场理论模式, *科学通报* [2008]

- ▶ 宋茜, 丁锋, 万卫星, 刘立波, 宁百齐, 北美地区夜间中尺度电离层行进式扰动的GPS台网监测研究, *地球物理学报* [2011]
- ▶ 万秉东, 李敏, 王源, 朱瑾, 陈耿雄, 极光电集流纬度变化特征初步分析, *地球物理学进展* [2013]
- ▶ 王敏, 丁锋, 万卫星, 宁百齐, 陈一定, 与日夜交替线移动相关的中尺度电离层扰动GPS网观测, *地球物理学报* [2009]
- ▶ 王秋军, 杜爱民, 赵旭东, 罗浩, 徐文耀, 1998年8月6日亚暴期间极光电, *地球物理学报* [2009]
- ▶ 王源, 洪明华, 陈耿雄, 徐文耀, 杜爱民, 赵旭东, 刘晓灿, 罗浩, 2000年4月6日磁暴夜侧场向电流变化特征, *科学通报* [2010]
- ▶ 温晋, 万卫星, 丁锋, 乐新安, 余承莉, 刘立波, 电离层垂直TEC映射函数的实验观测与统计特性, *地球物理学报* [2010]
- ▶ 文坤杰, 刘立波, 万卫星, 宁百齐, Millstone地区垂直等效风场的气候学变化, *空间科学学报* [2009]
- ▶ 吴迎燕, 朱岗崑, 徐文耀, 徐元芳, 余山地磁台百年磁暴(一)--太阳周期变化, *地球物理学报* [2009]
- ▶ 徐文耀, 地磁活动指数的过去、现在和未来, *地球物理学进展* [2009]
- ▶ 徐文耀, 亚暴期间极光电集流带的变化, *地球物理学报* [2009]
- ▶ 徐文耀, 白春华, 非洲磁异常对地磁场结构及其长期变化的控制作用, *地球物理学报* [2009]
- ▶ 徐文耀, 杜爱民, 磁暴环电流衰减率对磁层能量状态的影响, *地球物理学报* [2010]
- ▶ 徐文耀, 区加明, 杜爱民, 地磁场全球建模和局域建模, *地球物理学进展* [2011]
- ▶ 徐文耀, 区加明, 杜爱民, 地磁场模型误差分析中的几个问题, *地球物理学进展* [2011]
- ▶ 余优, 万卫星, 刘立波, 赵必强, 全球电离层TEC起伏特性分析, *地球物理学报* [2009]
- ▶ 张铁龙, 戎昭金, 磁尾电流片拍动研究进展, *空间物理学进展(第四卷)* [2013]
- ▶ 张云, 熊建刚, 万卫星, 中层大气重力波的全球分布特征, *地球物理学报* [2011]
- ▶ 赵必强, 万卫星, 王敏, 刘立波, 宁百齐, 震前电离层扰动研究进展及汶川地震前电离层变化, *科技导报* [2008]
- ▶ 赵旭东, 杜爱民, 徐文耀, 王源, 罗浩, 2008年1月5日磁层亚暴期间磁尾近地重联事件的THEMIS观测与分析, *地球物理学报* [2010]
- ▶ 种小燕, 张满莲, 张顺荣, 温晋, 刘立波, 宁百齐, 万卫星, 基于非相干散射雷达和GPS观测研究Millstone Hill地区等离子体层电子含量, *地球物理学报* [2013]
- ▶ 周旭, 万卫星, 赵必强, 乐新安, 任志鹏, 基于CHAMP卫星观测数据对热层大气密度的经验正交分析, *空间科学学报* [2010]
- ▶ 朱岗崑, 吴迎燕, 杜爱民, 赵必强, 洪明华, 关于日地关系主要元素与各种指---综述及展望, *地球物理学进展* [2009]