



Wenbin Xu' CV

Wenbin Xu, PhD
Assistant Professor of Space Geodesy
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PERSONAL

Born on 3 February 1985 in Changsha, China, Chinese citizen, married, two children

EDUCATION:

- Ph.D.** Geophysics (Geosciences)
King Abdullah University of Science and Technology (KAUST), Saudi Arabia, 2015
- M.Sc.** Photogrammetry and Remote Sensing
Central South University (CSU), China, 2011
- B.Sc.** Surveying Engineering
Central South University (CSU), China, 2008

PROFESSIONAL EXPERIENCE:

- PolyU, Hong Kong
Assistant Professor, started at August 2016
- UC Berkeley, USA
Postdoctoral Researcher, February 2016 – July 2016
- GFZ Potsdam, Germany
Guest Scientist, June 2014

RECENT PROJECT:

- 2018 - present, Improved Fault-Slip Source Model for the 2001 Mw 7.8 Kokoxili Earthquake in Tibet from the Combination Analysis of Satellite Radar Data, Optical Imagery and Seismic Data, Hong Kong Research Grant Council Early Career Scheme Grant
- 2016 - present, Seismo-geodesy analysis of shallow, moderate-large earthquakes in Iran between 1994 and 2014, Hong Kong Polytechnic University Start-up fund

PUBLICATIONS:

Peer-Reviewed Journal Articles

1. Xu W.*, S. Wu, K. Materna, R. Nadeau, M. Floyd, G. Funning, E. Chaussard, C.W. Johnson, J. Murray, X. Ding and R. Bürgmann, (2018), Interseismic ground



- deformation and fault slip rates in the greater San Francisco bay area from two decades of space geodetic data, *J. Geophys. Res. - Solid Earth*, 123.
2. Xu W.*, G. Feng, L. Meng, A. Zhang, J. P. Ampuero, R. Bürgmann and L. Fang, (2018), Transpressional rupture cascade of the 2016 Mw 7.8 Kaikoura earthquake, New Zealand, *J. Geophys. Res. - Solid Earth*, 123, 2396–2409.
 3. Chen K., W. Xu*, P. M. Mai, H. Gao, L. Zhang, X. Ding, (2018), The 2017 Mw 7.3 Sarpol Zahāb earthquake, Iran: a compact blind shallow-dipping thrust event in the mountain front fault basement, *Tectonophysics*, 747-748, 108-114.
 4. Wang L., H. Gao, G. Feng, W. Xu, (2018), Source parameters and triggering links of the earthquake sequence in central Italy from 2009 to 2016 analyzed with GPS and InSAR data, *Tectonophysics*, 744, 285-295.
 5. Xu W.*, E. Rivalta and X. Li, (2017), Magmatic architecture within a rift segment: Articulate axial magma storage at Erta Ale volcano, Ethiopia, *Earth Planetary Sci. Lett.*, 476, 79-86.
 6. Xu W.* (2017), Finite-fault slip model of the 2016 Mw 7.5 Chiloé earthquake, southern Chile, estimated from Sentinel-1 data, *Geophys. Res. Lett.*, 44, 4774-4780.
 7. Huang H., W. Xu, L. Meng, R. Bürgmann, and J. C. Baezd (2017), Early aftershocks and afterslip surrounding the 2015 Mw 8.4 Illapel rupture, *Earth Planetary Sci. Lett.*, 457, 282-291.
 8. Xu W.*, S. Jónsson, J. Ruch, and Y. Aoki (2016), The 2015 Wolf volcano (Galápagos) eruption studied using Sentinel-1 and ALOS-2 data, *Geophys. Res. Lett.*, 43, 9573-9580.
 9. Xu W.*, S. Jónsson, F. Corbi and E. Rivalta (2016), Graben formation and dike arrest during the 2009 Harrat Lunayyir dike intrusion: insights from InSAR, stress calculations and analog experiments, *J. Geophys. Res. - Solid Earth*, 121, 2837-2851.
 10. Xu W.*, R. Bürgmann and Z. Li (2016), An improved source model for the 1999 Mw 6.3 Chamoli earthquake, India, *Geophys. J. Int.*, 205, 236-242.
 11. Ruch J., T. Wang, W. Xu and S. Jónsson (2016), Oblique rift opening revealed by episodic magma injection in central Iceland, *Nat. Commu.*, 7, 12352.
 12. Xu W., J. Ruch and S. Jónsson (2015), Birth of two volcanic islands in the southern Red Sea, *Nat. Commu.*, 6, 7104.
 13. Xu W.*, R. Dutta and S. Jónsson (2015), Identifying active faults by improving earthquake locations with InSAR data and bayesian estimation: the 2004 Tabuk (Saudi Arabia) earthquake sequence, *Bull. Seismol. Soc. Am.*, 105, 1-12.
 14. Xu W.* and S. Jónsson (2014), The 2007–8 volcanic eruption on Jebel at Tair island (Red Sea), observed by satellite radar and optical images, *Bull. Vol.*, 76, 1-14.
 15. Xu W., Z. Li, X. Ding, C. Wang and G. Feng (2012), Application of small baseline subsets D-InSAR technology to estimate the time series land deformation and aquifer storage coefficients of Los Angeles area, *Chin. J. Geophys.*, 55, 452-461.
 16. Li Z., W. Xu, G. Feng, J. Hu, C. Wang, X. Ding and J. Zhu (2012), Correcting atmospheric effects on InSAR with MERIS water vapor data and elevation-dependent interpolation model, *Geophys. J. Int.*, 189, 898-910.
 17. Xu W., Z. Li, X. Ding and J. Zhu (2011), Interpolating atmospheric water vapor delay by incorporating terrain elevation information, *J. Geod.*, 85, 555-564.
 18. Xu W., Z. Li, X. Ding, G. Feng, J. Hu, J. Long, H. Yin and Y. Yang (2010), Correcting atmospheric effects in ASAR interferogram with MERIS integrated water vapor data, *Chin. J. Geophys.*, 53, 1073-1084.



Book Chapter:

1. Jónsson S. and W. Xu (2015), Volcanic eruptions in the southern Red Sea during 2007-2013, in N.M.A. Rasul and I.C.F. Stewart (eds.), *The Red Sea, Springer Earth System Sciences*, 175-186, doi:10.1007/978-3-662-45201-1_10, 4.

Invited Talks

1. Xu W., (2018), Co- and postseismic deformation of the 2014 Mw 6.9 Yutian earthquake, NW Tibet studied by high resolution optical and radar data. *GNSS Research Center*, Wuhan University, 8 September.
2. Xu W., J. Ruch and S. Jónsson (2016), Three volcanic eruptions in the southern Red Sea (2007-2013). *Berkeley Seismological Laboratory*, UC Berkeley, 3 May.
3. Xu W., J. Ruch and S. Jónsson (2015), Volcanic eruption in the southern Red Sea between 2007 and 2013. *Earth Observatory of Singapore*, Nanyang Technological University, Singapore, 18 September.
4. Xu W. and S. Jónsson (2015), InSAR and Its Applications. *Earth Observatory of Singapore*, Nanyang Technological University, Singapore, 17 September.
5. Xu W. and S. Jónsson (2014), Recent volcanic eruptions in southern Red Sea studied using high-resolution radar and optical satellite remote sensing. *PhD student meeting at IPGP*, Paris, France, 24-28 March
6. Xu W. and S. Jónsson (2013), Surtseyan Eruption and a New Island in the Zubair (Red Sea) Archipelago (Dec. 2011-Jan. 2012) Studied using High-resolution Radar and Optical Remote Sensing, *Surtsey 50th Anniversary Conference*, Reykjavik, Iceland, 12-15 August

TEACHING

- 2018 Spatial data acquisitions, Service learning
- 2017 Living on the dynamic earth, Service learning
- 2016 Satellite positioning and surveying, Spatial data acquisitions

AWARDS

- 2017 Outstanding Alumni of CSU
- 2014 IPGP Foreign Student Award of the IPGP Doctoral Students Congress
- 2013 Outstanding Scientific Research Achievement Prize for Higher Learning Institutions of Ministry of Education, China, First Prize of Natural Sciences – **National award**
- 2012 Outstanding Thesis Award for Master Degree of CSU
- 2012 The First Batch of Excellent Graduate Student Academic Awards of CSU
- 2011 KAUST Fellowship
- 2011 2011 Senior Conference on Advance Synthetic Aperture Radar, P.R. China, Best Paper Awards
- 2010 The 5th National Graduate Forum on Geodesy and Spatial Information, P.R. China, Best Paper Awards
- 2010 CSU Excellent Graduate
- 2009 The 1st Graduate Forum on Geodesy and Surveying, CSU, Best Paper Awards



- 2008 Graduate Degree Thesis Innovation Foundation of CSU
- 2008 CSU Full Scholarship

PROFESSIONAL MEMBERSHIPS

- American Geophysical Union Member
- European Geosciences Union Member

PROFESSIONAL SERVICE

- Reviewer for GRL, JGR, IEEE Geosci. Remote Sens. Lett., Sci. Rep., BSSA, Tectonophysics, Canadian J. Remote Sens., Remote Sens., J. Asian Earth Sci.
- Grant reviewer for NASA Earth and Space Science Fellowship (NESSF)