



## Wenbin Xu' CV

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Assistant Professor of Land Surveying and Geo-Informatics  
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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

### PUBLICATIONS:

#### Peer-Reviewed Journal Articles

1. 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*, doi: 10.1002/2017JB015168.
2. Xu W., E. Rivalta, 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.
3. 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.
4. Huang H., W. Xu, L. Meng, R. Bürgmann, J. C. Baezd (2017), Early Aftershocks and Afterslip Surrounding the 2015 Mw 8.4 Illapel Rupture, *Earth Planetary Sci. Lett.*, 457,



282-291.

5. 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.
6. 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.
7. 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.
8. 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.
9. Xu W., J. Ruch and S. Jónsson (2015), Birth of Two Volcanic Islands in the Southern Red Sea, *Nat. Commu.*, 6, 7104.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.

#### Other Publications:

1. Yu X., W. Xu and Y. Yang (2012), Comparative Study of Elevation-dependent Atmospheric Water Vapor Interpolation Methods, *J. Centr. S. Uni. (Sci. and Tec.)*, 43, 3542-3547.
2. Zhou W., W. Xu, Z. Li and C. Wang (2012), Elevation-dependent MERIS Water Vapor Interpolation and Its Application to Atmospheric Correction on ASAR Interferogram, *Geom. Inf. Sci. W. Uni.*, 37, 963-966.

#### Selected Conference Abstracts:



1. Xu W., G. Feng, R. Bürgmann (2018), How well do onshore geodetic data resolve fault slip during the 2016 Kaikoura earthquake, New Zealand? *EGU, General Assembly 2014*, Vienna, Austria, 8-13 April (Talk)
2. Xu W. and S. Jónsson (2014), Two recent surtseyan eruptions in the Zubair archipelago (Red Sea) studied using high-resolution radar and optical satellite remote sensing. *EGU, General Assembly 2014*, Vienna, Austria, 27 April-2 May (Talk)
3. Xu W., Z. Li and X. Ding (2011), Estimating the Time Series Land Deformation and Aquifer Storage Coefficients of Los Angeles area with the Application of Small Baseline Subsets InSAR, *2011 Senior Conference on Advance Synthetic Aperture Radar*, Beijing, China, 11-13 April (Talk)

#### Invited Talks

1. 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.
2. 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.
3. Xu W. and S. Jónsson (2015), InSAR and Its Applications. *Earth Observatory of Singapore*, Nanyang Technological University, Singapore, 17 September.
4. 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 IGP*, Paris, France, 24-28 March
5. 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**

- 2017 Living on the Dynamic Earth, Service Learning
- 2016 Satellite Positioning and Surveying, Spatial data acquisitions

#### **AWARDS**

- 2017 Outstanding Alumni of CSU
- 2014 IGP Foreign Student Award of the IGP 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 Sci. Rep., Geophys. Res. Lett., J. Geophys. Res., IEEE Geosci. Remote Sens. Lett., Tectonophysics, Canadian J. Remote Sens., Remote Sens., J. Asian Earth Sci.
- Grant reviewer for NASA Earth and Space Science Fellowship (NESSF)