

# 17 Prof. Xiangyun Hu



Name: Xiangyun Hu

Organization: China University of Geosciences, Wuhan

E-mail: xyhu@163.com

## Education

B.A. Applied Geophysics, Jilin University, Changchun, China,

M.A. Applied Geophysics, Jilin University, Changchun, China,

Ph.D. Mineral Resource Prospecting and Exploration, China University of Geosciences, Wuhan, China,

## Work Experience

Lecturer, Associate Professor, Professor, China University of Geosciences, Wuhan, 1994-present

## Research Interests

Electromagnetic theory and its application

## Committee Responsibilities and Professional Activities

Board Member: 《Applied Geophysics》、《Acta Geophysica Sinica》、《Earth Science》、《Journal of Earth Science》

## Major Publications

Zuo, B., Hu, X. (2015). Edge detection of gravity field using eigenvalue analysis of gravity gradient tensor. *Journal of Applied Geophysics*, 114, 263-270.

Wei, W., Cai, J. C., Hu, X. Y., Fan, P., Han, Q., Lu, J., et al. (2015). A numerical study on fractal dimensions of current streamlines in two-dimensional and three-dimensional pore fractal models of porous media. *Fractals-complex Geometry Patterns & Scaling in Nature & Society*, 23(1).

Chen, B., Hu, X. Y., Liu, D. H., Zhang, Y. X. (2014). The development history and new progress of magnetic resonance sounding technique. *Progress in Geophysics*, 29(2), 650-659.

Zhang, H. L., Marangoni, Y. R., Zuo, R. G., Hu, X. Y., (2014). The improved anisotropy normalized variance for detecting non-vertical magnetization anomalies. *Chinese Journal of Geophysics*, 57(6), 800-808.

Zhang, H., Marangoni, Y. R., Hu, X., & Zuo, R. (2014). Ntrtp: a new reduction to the pole method at low latitudes via a nonlinear thresholding. *Journal of Applied Geophysics*, 111, 220-227.

Liu, S., Hu, X., Liu, T., Xi, Y., Cai, J., & Zhang, H. (2015). Ant colony optimisation inversion of surface and borehole magnetic data under lithological constraints. *Journal of Applied Geophysics*, 112, 115-128.

Jiang, W., Wang, L., Niu, X., Zhang, Q., Zhang, H., & Tang, M., et al. (2014). High-precision image aided inertial navigation with known features: observability analysis and

- performance evaluation. *Sensors*, *14*(10), 19371-19401.
- Cai, J., Perfect, E., Cheng, C. L., & Hu, X. (2014). Generalized modeling of spontaneous imbibition based on hagen-poiseuille flow in tortuous capillaries with variably shaped apertures. *Langmuir the Acs Journal of Surfaces & Colloids*, *30*(18), 5142-51.
- Liu, S., Hu, X., Xi, Y., & Liu, T. (2015). 2d inverse modeling for potential fields on rugged observation surface using constrained delaunay triangulation. *Computers & Geosciences*, *76*, 18-30.
- Yan, L. I., Hu, Xiang-Yun., Yang, W. C., Wei, W. B., Fang, H., & Han, B. (2012). A study on parallel computation for 3d magnetotelluric modeling using the staggered-grid finite difference method. *Chinese Journal of Geophysics*, *56*(3), 287–295.
- Liu, S., Hu, X., & Liu, T. (2014). A stochastic inversion method for potential field data: ant colony optimization. *Pure & Applied Geophysics*, *171*(7), 1531-1555.
- Hu, Xiang-Yun., Huo, G. P., Gao, R., Wang, H. Y., Huang, Y. F., & Zhang, Y. X., et al. (2013). Two-dimensional simulation of magnetotelluric anisotropy and case analysis. *Chinese Journal of Geophysics*, *56*(6), 862–872.
- Liu, S., Feng, J., Gao, W. L., Qiu, L. Q., Liu, T. Y., & Xiang-Yun, H. U. (2013). 2d inversion for borehole magnetic data in the presence of significant remanence and demagnetization. *Chinese Journal of Geophysics*, *56*(12), 4297-4309.
- Liu, S., Hu, X., Liu, T., Feng, J., Gao, W., & Qiu, L. (2013). Magnetization vector imaging for borehole magnetic data based on magnitude magnetic anomaly. *Geophysics*, *78*(6), D429-D444.
- Hu, X., Peng, R., Wu, G., Wang, W., Huo, G., & Han, B. (2013). Mineral exploration using csamt data: application to longmen region metallogenic belt, guangdong province, china. *Geophysics*, *78*(3), B111-B119.