

Academic Staff Resume

Name: Liu, Pengfei

Title: Post-doctoral Fellow

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Academic Qualification:

2017.09-2019.03 **Visiting Ph.D. student**, Institute of Geophysics, ETH Zurich, Zurich, Switzerland. Supervisor: Prof. Ann M. Hirt

2013.09-2019.06 **Ph.D.**, Geodetection and Information Technology, China University of Geosciences, Wuhan, China. Supervisor: Prof. Peimin Zhu

2009.09-2013.06 **B.Sc.**, Applied Geophysics, China University of Geosciences, Wuhan, China.

Research Area

Rock magnetism;

Planetary magnetism;

3D-printed analogue rocks.

Working Experience

2020.06-present **Post-doctor**, State Key Laboratory of Lunar and Planetary Sciences, Macau University of Science and Technology, Macau, China. Supervisor: Prof. Keke Zhang

2019.09-2020.01 **Academic guest**, State Key Laboratory of Lithospheric Evolution, Institute of Geology and Geophysics, CAS, Beijing, China. Supervisor: Prof. Chenglong Deng

Research Projects

2020.06-present The Science and Technology Development Fund, Macau SAR, Post-doctoral Fellow (File No. 0002/2019/APD)

Professional Certification and Awards

2017-2019 The Chinese Government Scholarship for Study abroad (CSC No. 201706410009).

Professional Society Membership

2020-present Member of European Geosciences Union (EGU)

2016-present Member of American Geophysical Union (AGU)

Academic Publication

Journal Articles (selected):

[1] Hirt, A. M. and **Liu, P.**, 2020. Estimating the Concentration of Superparamagnetic Particles in Geological, Biological, and Synthetic Materials. *Frontiers in Earth Science*. (Under review)

- [2] **Liu, P.**, Gervasoni, S., Madonna, C., Gu, H., Coppo, A., Pané, S., Hirt, A. M., 2020. 3D-Printed Analog Rocks: New Perspectives for Understanding the Relationship Between Deformation and Magnetic Anisotropy. *Earth and Planetary Science Letters* . 539. doi:10.1016/j.epsl.2020.116241.
- [3] **Liu, P.**, Hirt, A. M., Schöler, D., Uebe, R., Zhu, P., Liu, T., Zhang, H., 2019. Numerical unmixing of weakly and strongly magnetic minerals: examples with synthetic mixtures of magnetite and hematite. *Geophysical Journal International* . 217: 280-287. doi: 10.1093/gji/ggz022.
- [4] **Liu, P.**, Liu, T., Zhu, P., Yang, Y., Zhou, Q., Zhang, H., Chen, G., 2017. Depth estimation for magnetic/gravity anomaly using model. *Pure and Applied Geophysics* . 174:1729-1742. doi: 10.1007/s00024-017-1509-y.

Conferences:

- [1] **Liu, P.** and Hirt, A. M. Behavior of magnetic inclination shallowing based on 3D printed structure samples. The 5th Beijing Earth and Planetary Interiors Symposium. (Beijing, 24-27 August 2019)
- [2] Hirt, A. M., **Liu, P.**, Madonna, C., Gervasoni, S., Gu, H., Pané, S.. 3-D printed analog rocks: A new approach to examine inclination flattening. (Vienna, 7–12 April 2019)
- [3] Hirt, A. M., **Liu, P.**, Madonna, C., Gervasoni, S. G., Gu, H., Pané, S. 3D-Printed Analog Rocks: New Perspectives for Understanding the Relationship Between Deformation and Magnetic Anisotropy. AGU Fall Meeting. (Washington, D.C., 10-14 December 2018)
- [4] **Liu, P.** and Hirt, A. M. Discriminating individual ferromagnetic minerals in synthetic mixtures of magnetite and hematite. 16th Castle Meeting (New Trends on Paleo, Rock and Environmental Magnetism). (Poland, 10-16 June 2018)
- [5] **Liu, P.**, Liu, T. and Zhu, P. A research on the application of Tilt-depth method. AGU Fall Meeting. (San Francisco, 12-16 December 2016)
- [6] **Liu, P.**, Liu, T., Yang, Y. and Zhang, H., 2015. Tilt-depth method via second order derivative of gravity field. The 2nd Annual Meeting of Chinese Geosciences Union (Beijing, 10-14 October 2015)