Research Field: PLANETARY MAGNETISM
Focused Field: 3D-PRINTED ANALOGUE ROCKS

SHORT BIO

Pengfei Liu was born in Dingxi, China, and received his B.Sc degree in Geophysics from China University of Geosciences (CUG), Wuhan, in 2013. In 2019 he completed his PhD studies in the areas of geomagnetism and paleomagnetism at the Institute of Geophysics & Geomatics, CUG, Wuhan, China. From September 2017 to March 2019, he was a visiting Ph.D. student at ETH Zürich under the guidance of Prof. Ann M. Hirt, where he conducted 3D-printed analogue research.

After he earned a doctorate, he served as an academic guest at the State Key Laboratory of Lithospheric Evolution, Institute of Geology and Geophysics, CAS, Beijing, China, where he conducted rock magnetism research. In 2020 he accepted a post-doctoral position at the Macau University of Science and Technology, Macau, China.

His research focuses on planetary magnetism, and the response of remanent magnetization to compaction in geological processes. Though designing analog rocks using 3D printing of magnetic ink, he investigates the effect of deformation on magnetic remanence and magnetic anisotropy.

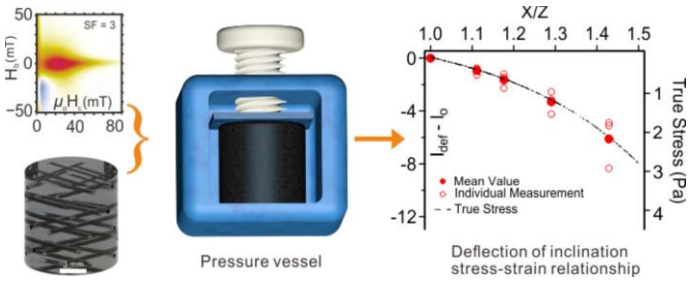
Post-doctor

PENGFEI LIU

Visiting Ph.D. student: GEOPHYSICS – ETH Zurich

PhD: GEOPHYSICS – China University of Geosciences, Wuhan

BSc: GEOPHYSICS – China University of Geosciences, Wuhan



Liu et al., EPSL, 2020

KEY PUBLICATIONS

Hirt, A. M. and ***Liu, P.*** , 2021. *Estimating the Relative Concentration of Superparamagnetic and Stable Single Domain Particles in Geological, Biological, and Synthetic Materials.* ***Frontiers in Earth Science***

Liu, P., et al., 2020. *Response of remanent magnetization to deformation in geological processes using 3D-printed structures*. ***Earth and Planetary Science Letters***

Liu, P., et al., 2019. *Numerical unmixing of weakly and strongly magnetic minerals: examples with synthetic mixtures of magnetite and hematite.* ***Geophysical Journal International***

Liu, P., et al., 2017. *Depth estimation for magnetic/gravity anomaly using model.* ***Pure and Applied Geophysics***

PROFESSIONAL EXPERIENCE

2020.06-present – *Macau University of Science and Technology, Macau, China – Post Doctoral*

2019.09-2020.01 – *State Key Laboratory of Lithospheric Evolution, Institute of Geology and Geophysics, CAS, Beijing, China – Academic guest*

GRANTS

2020-2022 – *Post-Doctoral Funding*

The Science and Technology Development Fund, Macau SAR (File no. 0002/2019/APD)

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