

Deformation Across Scales: From Plate Boundaries to Lab Experiments



Dr. Xiaochuan TIAN (田小川博士)

Department of Earth and Planetary Sciences, UC Davis, U.S.A.

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**Conference Room, 3/F,
Mong Man Wai Building**



[Zoom Link](#) (Mixed-mode)

ID: 992 4969 9833 Passcode: 983837

This seminar explores deformation processes from tectonic plate boundaries to micrometer-scale rock fabric developments. First, numerical models show that spreading-rate-dependent magmatism controls global oceanic transform fault topography, challenging textbook ideas that these faults are simple conservative plate boundaries. Second, we develop numerical Griggs Apparatus models to bridge laboratory vs natural conditions for rock fabric formations. This tool allows us to investigate lab experiments in finer details and help refine interpretations of deep crustal deformation recorded in xenoliths. Ultimately, these studies aim to link large-scale tectonic processes with microstructural records, advancing understanding of lithospheric dynamics.



Enquires: 3943 5494 earth@cuhk.edu.hk