

Xing-Lin Lei graduated from China Geological University in 1983 and obtained his M.Sc. degree in Geophysics in 1986. He was awarded a Ph.D. degree in Tectonophysics by the Institute of Geology, China Earthquake Administration in 1990. He is currently working at the Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan. He is also a guest professor of the State Key Laboratory of Earthquake Dynamics, Institute of Geology, China Earthquake Administration. His major research interests include: 1) Experimental studies in laboratory and numerical approaches on earthquake prepare process; 2) 4D statistics of point processes such as seismic/micro-seismic activity in the earth and acoustic emission events in stressed rock samples; 3) Understanding of the role of pores, cracks, and fluids on rock physics. He addresses problems, associated with the physical properties and fracture behaviors of heterogeneous rocks in different scales, as they arise in the geological sciences, particularly in seismology and mechanical engineering and materials physics. His works have focused on the self-similarity in geological systems, the hierarchical property of fracture in heterogeneous rocks, process-zone of shear faulting, tempo-spatial evolution of the pre-failure damage in stressed rocks in laboratory, monitoring of the displacement between two immiscible fluids in porous rocks using difference seismic tomography.