

---

**S. LI**, Rice University/McGill University

*Geometric Compensated Compactness Theorems and Applications to the Isometric Immersion Problem*

In this talk we present two generalised compensated compactness theorems in the setting of Banach spaces and vector bundles, proved via functional and microlocal analytic methods. We then discuss their applications to the rigidity of isometric immersions of Riemannian/semi-Riemannian manifolds with weak regularities, and some related PDE problems. This is joint work with Prof. Gui-Qiang G. Chen.