Abstract:
Biharmonic maps are maps between Riemannian manifolds which are critical points of the bi-energy. They are solutions of a system of fourth order PDEs and they include harmonic maps and biharmonic functions as special cases. Biharmonic submanifolds (which include minimal submanifolds as special cases) are the images of biharmonic isometric immersions. The talk will review some problems, including classification of biharmonic submanifolds in space forms, biharmonic maps into spheres, biharmonic conformal maps, and unique continuation theorems, studied in this field and their progress since 2000. The talk also presents some recent work on equivariant biharmonic maps and the stability and index of biharmonic hypersurfaces in space forms.

Host: Lei Ni

Wednesday, April 8, 2020
2:00 PM
Zoom Meeting ID: 747181629