

Title: Quasiconformal-based registration models for large deformations

Abstract:

Registration, a process of finding a 1-1 correspondence between image data, is crucial in different areas. Registration problems become challenging when large deformations occur. Local flips are often observed, which induce registration inaccuracies. In this talk, we will present three registration models using quasiconformal approaches, which can deal with very large deformations. The obtained registration is guaranteed to be bijective, smooth and minimising local geometric distortions. Applications of the registration models in computer graphics and visions will be shown.