Workshop dedicated to the memory of Professor Gabriela Kohr
(6th edition)
Geometric Function Theory in Several Complex Variables and Complex Banach Spaces
Cluj-Napoca, Romania November 27 – 29, 2026

Spherical length, local connectedness and linear accessibility

Ikkei Hotta
Yamaguchi University, Ube, Japan

Abstract

In this talk, two topics related to the boundary geometry of conformal mappings will be discussed. First, we will explain how a uniform bound on the spherical lengths of the images of concentric circles implies local connectedness of the boundary of the image domain. Second, we will revisit a classical result concerning the stability of linearly accessible domains under locally uniform convergence of conformal mappings. In particular, we will discuss a subtle geometric issue in Biernacki's original proof. The talk is based on joint work with Shota Hoshinaga and Li-Mei Wang.