Workshop dedicated to the memory of Professor Gabriela Kohr
Geometric Function Theory in Several Complex Variables and Complex Banach Spaces

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Absolute continuity in higher dimensions

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Abstract

Geometric Function Theory lies at the core of two distinguished fields of Mathematics, namely, Geometry and Analysis, and has various fundamental applications. The main goal of the present talk is to survey the absolute continuity and some related important notions of geometric function theory of several real variables. We also provide the main relationships between various classes of mappings whose definitions rely on metric approaches and techniques: finitely bi-Lipschitz mappings, quasisymmetric mappings, quasimöbius and quasiconformal mappings, mappings of finite metric and area distortion. Several illustrated examples are also presented.

The talk is based on joint works with Elena Afanas'eva (Institute of Applied Mathematics and Mechanics of the NAS of Ukraine).