
*Workshop dedicated to the memory of Professor Gabriela Kohr
(3rd edition)*

Geometric Function Theory in Several Complex Variables and Complex Banach Spaces

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Non-Linear Resolvents of Holomorphically Dissipative Mappings

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Abstract

In this talk I plan to present known and new results on holomorphically dissipative/accretive mappings and their resolvents.

Namely, a criterion for a mapping to be holomorphically accretive with given squeezing ratio as well estimates on its non-linear resolvent will be presented.

Following an idea of L.A. Harris, we prove an inverse function theorem for mappings admitted so-called one-sided estimates. This allows to obtain a distortion result for non-linear resolvents. Also we establish a covering result. In their turn, the distortion and covering theorems imply accretivity of resolvents with estimates on squeezing ratio.

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