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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Contributed Talk

g-Loewner chains and the Graham-Kohr extension operator in complex Banach spaces

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Abstract

Starting from the recent results proved by I. Graham, H. Hamada, G. Kohr and M. Kohr, we focus our attention on the Graham-Kohr extension operator (introduced by I. Graham and G. Kohr in 2002) and its properties.

In particular, we prove that the Graham-Kohr extension operator preserves the first elements of g-Loewner chains on the unit disc to the first elements of g-Loewner chains on the domain $\Omega_{p,r}$ in a complex Banach space X, where $\Omega_{p,r} = \{(z_1, w) \in \mathbb{C} \times X : |z_1|^p + ||w||_X^r < 1\}$ for $p, r \geq 1$.