Analysis Seminar

Extremal Problems on Weighted Bergman-Besov Spaces through Bergman Projections

By

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Abstract: We extend the method of using Bergman projections for solving extremal problems introduced by Ferguson to systematically compute extremal functions in weighted Bergman-Besov spaces at arbitrary data points in the unit disc.

We include the case p=1 by first proving the existence of solutions to a large class of extremal problems in this case. We also develop expansions of analytic functions in terms of Möbius factors similar to Taylor series to handle data points different from the origin. Our method is especially suitable for Carathéodory-Fejér-type interpolation.

(Joint work with R. Özbek and A. Balcı)

Date: Tuesday, December 3, 2024
Time: 14:00-15:00
Place: SA141 - Mathematics Seminar Room