

## Extrapolation and factorization of matrix weights

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We give an overview of the theory of matrix weights and of the proofs of factorization and extrapolation for matrix weights. This involves the development of harmonic analysis on convex set-valued functions and leads to the proof the Jones factorization theorem and the Rubio de Francia extrapolation theorem for matrix weights. This talk is based on a joint work with David Cruz-Uribe.