

## **Quasianalyticity in integral transforms on higher grassmannians**

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The Radon and cosine transforms are central in convex and integral geometry, in particular in valuation theory and geometric tomography. The range of those operators has been described by Gelfand-Graev-Rosu and Alesker-Bernstein in representation-theoretic terms, and in some cases also as the solution space of a PDE by John, Grinberg, Gonzalez and Takehi. I will discuss the geometric restrictions on the support of a function in the image, or more precisely a quasianalyticity-type property of the image in the sense of Kazdan.

This will lead to the strengthening of classical theorems of Funk and Alexandrov in geometric tomography, and of Klain and Schneider in convex valuation theory. The results are based on a novel support-type uncertainty principle on grassmannians.