

SEMINARIO DE ANÁLISIS COMPLEJO (COMPLEX ANALYSIS SEMINAR)

## On the convolution of convex 2-gons

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**Abstract:**

In 1973, Ruscheweyh and Sheil-Small showed that the convolution between two convex mappings (that is, of two analytic functions which conformally map the unit disk  $\mathbb{D}$  onto a convex domain of the complex plane  $\mathbb{C}$ ) is again convex. However, further properties of this operator are in general unknown. In this talk, we will characterize the asymptotic growth of the (arbitrary) convolution of convex polygons of 2 edges, thus complementing an earlier result by J. Cima.

This talk is based on a joint work with M. Chuaqui (Pontificia Universidad Católica de Chile), R. Hernández (Universidad Adolfo Ibáñez) and A. Mas (Universidad de Valencia).