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On the growth of the Cauchy integral

In the talk we consider the growth of the Cauchy integral

$$\int_{S^n} \frac{d\mu(\xi)}{(1 - \langle z, \xi \rangle)^n}, \quad z \in B^n,$$

where $B^n = \{z \in \mathbb{C}^n : |z| < 1\}$ is the unit ball, $S^n = \partial B^n$. The growth is described in terms of the modulus of continuity of μ , where μ is a nonnegative Borel measure on the unit sphere S^n .

Joint work with Igor Chyzhykov.