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## Total variation bound for Hadwiger's functional using Stein's method

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Let K be a convex body in  $\mathbb{R}^d$ . Let  $X_K$  be a d-dimensional random vector distributed according to the Hadwiger-Wills density  $\mu_K$  associated with K, defined as  $\mu_K(x) = ce^{-\pi \operatorname{dist}^2(x,K)}$ ,  $x \in \mathbb{R}^d$ . Finally, let the information content  $H_K$  be defined as  $H_K = \operatorname{dist}^2(X_K, K)$ .

In this talk, we will study the fluctuations of  $H_K$  around its expectation as the dimension d go to infinity. Stein's method plays a crucial role in our analysis. This is joint work with Valentin Garino.

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