LOCALISATION OF BOCHNER RIESZ MEANS CORRESPONDING TO THE SUB-LAPLACIAN ON THE HEISENBERG GROUP

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In this talk we will discuss localisation of Bochner Riesz means of order 0 for the sub-Laplacian $\mathcal{L}$ on the Heisenberg Group $\mathbb{H}^d$. More precisely, generalising the method of Carbery and Soria (1988) in the context of $\mathbb{H}^d$, we shall show that for any $\beta > 0$ and $0 < \eta < 1$, $\lim_{R\to\infty} R^{-\beta} S_R f(z,t)$ goes to 0 a.e. on the set $\{(z,t) \in \mathbb{H}^d : \|(z,t)\| \leq 1\}$ for $f \in L^2(\mathbb{H}^d \setminus \{\|(z,t)\| \leq 3\}, \|(z,t)\|^{-\eta}\, dz\, dt)$, where S_R are Bochner Riesz means of order 0 for $\mathcal{L}$ on $\mathbb{H}^d$.

This is joint work with Jotsaroop Kaur.