

Conformal fractional powers and heat kernels in Heisenberg-type groups

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In this talk we discuss the conformal fractional powers of the horizontal Laplacian in groups of Heisenberg type. We present a new approach, based on the heat equation and on extension operators, to the derivation of the fundamental kernels for these nonlocal operators and to the construction of explicit solutions to fractional CR-Yamabe type problems. The talk is based on joint works with N. Garofalo.