L^p estimates for the wave equation associated to the Grushin operator

KAUR JOTSAROOP AND SUNDARAM THANGAVELU

Abstract. We prove that the solution of the wave equation associated to the Grushin operator $G = -\Delta - |x|^2 \partial_t^2$ is bounded on $L^p(\mathbb{R}^{n+1})$, with $1 < p < \infty$, when $\left| \frac{1}{p} - \frac{1}{2} \right| < \frac{1}{n+2}$.