A Carleson-type estimate in Lipschitz type domains for non-negative solutions to Kolmogorov operators

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Abstract. We prove a Carleson type estimate, in Lipschitz type domains, for non-negative solutions to a class of second order degenerate differential operators of Kolmogorov type of the form

$$\mathscr{L} = \sum_{i,j=1}^{m} a_{i,j}(z)\partial_{x_i x_j} + \sum_{i=1}^{m} a_i(z)\partial_{x_i} + \sum_{i,j=1}^{N} b_{i,j}x_i\partial_{x_j} - \partial_t,$$

where $z = (x,t) \in \mathbb{R}^{N+1}$, $1 \leq m \leq N$. Our estimate is scale-invariant and generalizes previous results valid for second order uniformly parabolic equations to the class of operators considered.

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