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Boundary Harnack inequalities for parabolic operators. (Inégalités de Harnack à la frontière pour des opérateurs paraboliques.) (French) Zbl 0661.47042

C. R. Acad. Sci., Paris, Sér. I 308, No. 13, 401-404 (1989).

Let Ω be an open set of \mathbb{R}^{n+1} and let Q be a boundary point of Ω having a neighborhood whose intersection with the boundary of Ω is “Lipschitz”. For a parabolic operator, we compare the behavior of positive L-solutions in Ω converging to zero at every point of the boundary which is sufficiently close to Q . A boundary Harnack principle is then proved and used to describe the cone of positive L-solutions converging to zero at every point of $\partial_p \Omega - \{Q\}$, where $\partial_p \Omega$ is the parabolic boundary of Ω .

MSC:

- 47F05** General theory of partial differential operators (should also be assigned at least one other classification number in Section 47-XX) Cited in 2 Documents
- 35K20** Initial-boundary value problems for second-order parabolic equations

Keywords:

boundary point; parabolic operator; positive L-solutions; boundary Harnack principle; parabolic boundary