

Errata corrigé. Summability of semicontinuous supersolutions to a quasilinear parabolic equation

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It has come to our attention that an assumption is missing in [1, Theorem 1.1]. The omission affects only the construction on page 74, where the function h can be *unbounded*. The correction is to add the following assumption for the p -superparabolic function $v : G \times (0, T) \rightarrow (-\infty, \infty]$: *there does not exist a time t_0 , with $0 < t_0 < T$, such that*

$$\lim_{t \rightarrow t_0+} v(x, t) \equiv +\infty \quad \text{for all } x \in G.$$

(This total blow-up can happen only if v does not belong to $L_{\text{loc}}^{p-2}(\Omega)$, where $\Omega = G \times (0, T)$.) If the requirement is *not* fulfilled, it can be detected from the boundary behaviour, since then it must happen that

$$\limsup_{(x, \tau) \rightarrow (\xi, t)} v(x, \tau) = \infty$$

at some boundary point (ξ, t) , with $\xi \in \partial G$, and $0 < t < T$. See [2] for more information.

References

- [1] J. KINNUNEN and P. LINDQVIST, *Summability of semicontinuous supersolutions to a quasilinear parabolic equation*, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) **4** (2005), 59–78.
- [2] T. KUUSI, P. LINDQVIST and M. PARVIAINEN, *Shadows of infinities*, Ann. Mat. Pura Appl. (4) **195** (2016), 1185–1206.