The precise boundary trace of semilinear elliptic equations in the supercritical case

L. Veron

We construct and study the properties of the precise boundary trace of positive solutions of $-\Delta u + u^q = 0$ in a smooth bounded domain of $\mathbb{R}^N$, in the supercritical case $q \geq q_c = (N+1)/(N-1)$. This boundary trace is a Borel measure, outer regular in the fine topology associated to the Bessel capacity $C_{2/q,q'}$ in dimension N-1.