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Peng Feng* (pfeng@fgcu.edu), Dept of Physical Sciences and Mathematics, Fort Myers, FL 33965. *On explosive solutions of a class of semilinear elliptic equations.*

In this talk, we show existence, uniqueness and exact asymptotic behaviour of solutions near the boundary to a class of semilinear elliptic equation $-\Delta u = \lambda g(u) - b(x)f(u)$ in Ω and $u = \infty$ on $\partial\Omega$, where $\lambda \in \mathbb{R}$, $b(x) > 0$ in Ω but vanishes on the boundary. Our result covers a large class of $g(u)$, $f(u)$. (Received September 05, 2006)