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Abstracts of Short Communications and Posters

Section:

10. Partial Differential Equations

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Wang, Hwai-chiuan, Tsing Hua University, Taiwan
Semilinear Elliptic Problems in Interior and Exterior Flask Domains.
In this note we prove the following assertions: (1) $\alpha_I = \alpha_M = \alpha_\Gamma$; (2) let $\Omega_0 = \Omega_1 \cup \Omega_2$, where $\Omega_1 \cap \Omega_2$ is bounded, and $\alpha_i = \alpha(\Omega_i)$ the index of J in Ω_i for $i = 0, 1, 2$. J satisfies the $(PS)_{\alpha_0}$- condition if and only if the inequality $\alpha_0 < \min\{\alpha_1, \alpha_2\}$ holds; (3) there exists $s_0 > 0$ such that $\alpha(D_s^r)$ admits a minimizer if $s > s_0$, but $\alpha(D_s^r)$ does not admit any minimizer if $s < s_0$, where D_s^r is an interior flask domain.