# NON-HOMOGENEOUS P-LAPLACIAN EQUATIONS ON THE SIERPINSKI GASKET

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**Abstract**

Let $\mathcal{S}$ be the Sierpi\'nski gasket in $\mathbb{R}^2$ and $\mathcal{S}_{0}$ denote the boundary of $\mathcal{S}$. In this paper, we study the following non-homogeneous $p$-Laplacian equation \begin{align*} -\Delta_p u &= \lambda |u|^{q-2} u + f \text{~in}\; \mathcal{S}\setminus\mathcal{S}_0\\ u &= 0\;\mbox{~on}\; \mathcal{S}_0, \end{align*} where $p$, $q$, $\lambda$ are real numbers such that $\lambda >0$, $1

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