A Neumann $p$-Laplacian problem on metric spaces

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We use a variational approach to study existence and regularity of solutions for a Neumann $p$-Laplacian problem with a reaction term on metric spaces equipped with a doubling measure and supporting a Poincaré inequality. Trace theorems for functions with bounded variation are applied in the definition of the variational functional and minimizers are shown to satisfy De Giorgi type conditions.