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Dirichlet and Neumann boundary conditions for the p -Laplace operator: What is in between?

We characterize all order preserving semigroups on $L^2(\Omega)$ which are generated by convex, lower semicontinuous, local functionals and which are sandwiched between the semigroups generated by the p -Laplace operator with Dirichlet and Neumann boundary conditions; here, $p \in (1, \infty)$ and $\Omega \subseteq \mathbf{R}^N$ is a bounded domain with Lipschitz continuous boundary. We show that every such semigroup is generated by the p -Laplace operator with Robin type boundary conditions. This is joint work with M. Warma.