THE GEOMETRY OF THE P-LAPLACIAN

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ABSTRACT. In this survey I address geometric questions related to the usual p-Laplacian $-\Delta_p u = \operatorname{div}\left(|\nabla u|^{p-2}\nabla u\right)$ as well as its normalized version $-\Delta_p^N u = \frac{1}{p}|\nabla u|^{2-p}\Delta_p u$ and their parabolic counterparts. Special attention is given to limiting cases $p \to \infty$ and $p \to 1$, to eigenvalue problems and to Neumann boundary conditions.

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