On the Principal Eigencurve of the $p$-Laplacian: Stability Phenomena

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Abstract. We show that each point of the principal eigencurve of the nonlinear problem

$$-\Delta_p u - \lambda m(x)|u|^{p-2} u = \mu |u|^{p-2} u \quad \text{in } \Omega,$$

is stable (continuous) with respect to the exponent $p$ varying in $(1, \infty)$; we also prove some convergence results of the principal eigenfunctions corresponding.