Ana Maria Matei* (amatei@loyno.edu), Loyola University New Orleans, Department of Mathematics, 6363 St Charles Ave, New Orleans, LA 70118. *On the optimality of two isoperimetical inequalities for the p-Laplacian.

We study the relationship between the first eigenvalue of the p-Laplacian (p>1) and Cheeger’s isoperimetical constant for families of manifolds and graphs with the Cheeger constant converging to zero. (Received September 06, 2010)