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Marian Bocea* (marian.bocea@ndsu.edu), North Dakota State University, Department of Mathematics, NDSU Dept. # 2750, P.O. Box 6050, Fargo, ND 58108-6050. *Γ -convergence of power-law functionals with variable exponents.*

Motivated in part by models of (first-failure) dielectric breakdown, we obtain several Γ -convergence results for power-law functionals with variable exponents. Some connections with the generalization of the ∞ -Laplace equation to the variable exponent setting will be presented. This is joint work with Mihai Mihăilescu (University of Craiova, Romania, and Central European University, Budapest, Hungary) (Received September 20, 2009)