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Cristina Popovici* (cristina.popovici@ndsu.edu), Department of Mathematics, North Dakota State University, NDSU Dept. # 2750, P.O. Box 6050, Fargo, ND 58108-6050. Γ -convergence of Power-Law Functionals and Applications to Polycrystal Plasticity.

Models of polycrystal plasticity are obtained as limiting cases of more flexible power-law models via Γ -convergence. The effective yield sets are characterized in terms of variational principles in L^{∞} associated to the limiting functionals. (Received July 20, 2010)