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Richard S Ellis, Jonathan Machta and **Peter T Otto*** (potto@willamette.edu),
Department of Mathematics, Willamette University, Salem, OR 97301. *Asymptotic behavior of the
finite-size magnetization as a function of the speed of approach to criticality.*

The main focus of this paper is to determine whether the thermodynamic magnetization is a physically relevant estimator of the finite-size magnetization. This is done by comparing the asymptotic behaviors of these two quantities along parameter sequences converging to either a second-order point or the tricritical point in the mean-field Blume-Capel model. (Received September 21, 2009)