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Fernando Charro* (fcharro@wayne.edu). *Asymptotic mean value formulas for nonlinear equations.*

In recent years there has been an increasing interest in whether a mean value property, known to characterize harmonic functions, can be extended in some weak form to solutions of nonlinear equations. This question has been partially motivated by the surprising connection between Random Tug-of-War games and the normalized p -Laplacian discovered some years ago, where a nonlinear asymptotic mean value property for solutions of a PDE is related to a dynamic programming principle for an appropriate game. In this talk we discuss asymptotic mean value formulas for a class of nonlinear second-order equations that includes the classical Monge-Ampère equation among other examples. (Received August 01, 2021)