1052-35-113 **Juan J Manfredi*** (manfredi@pitt.edu), 140 Thackeray Hall, 139 University Drive, Pittsbugh, PA 15260, and **Mikko Parviainen** and **Julio Daniel Rossi**. *Asymptotic mean value properties for p-harmonic functions and tug-of-war games with noise.*

We present a variant of the tug-of-war noise of Peres and Sheffield. This game has a well-defined value that approximates p-harmonic functions as the step size goes to zero. Asymptotic mean value properties are used to identify the differential equation (p-Laplace equation,$p \geq 2$) satisfied by the limits of value functions of tug-of-war games with noise. (Received August 24, 2009)