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Jiuyi Zhu* (jiuyi.zhu@wayne.edu), 1150 Faculty/Administration Building, 656 W. Kirby, Detroit, MI 48202, and **Guozhen Lu**. *Maximum Principle and Symmetry results for Viscosity Solution of Fully Nonlinear Equations.*

The paper is concerned about maximum principle and radial symmetry for viscosity solution of fully nonlinear equations. We obtain the radial symmetry, monotonicity for nonnegative viscosity solution of

$$F(D^2u) + u^p = 0 \quad \text{in } \mathbb{R}^n \quad (1)$$

under asymptotic rate $u = o(|x|^{-\frac{2}{p-1}})$ at infinity, where $p > 1$. New maximum principle for fully nonlinear elliptic equation are established. Our results apply to Pucci' extremal operators, Bellman or Isaccs equations. Radial symmetry, monotonicity and the corresponding maximum principle for fully nonlinear elliptic equation in a punctured ball are shown. We also investigate the radial symmetry for viscosity solution of fully parabolic equations. (Received August 31, 2012)