

1108-35-99

Qing Liu (qingliu@pitt.edu), **Armin Schikorra** (armin.schikorra@unibas.ch) and
Xiaodan Zhou* (xiz78@pitt.edu). *A game-theoretic proof of convexity preserving properties for motion by curvature.*

In this talk, we present new proofs of convexity preserving properties for the p-Laplace equation and the level set mean curvature flow equation by using game-theoretic approximations. Our new proofs are based on selecting appropriate game strategies and iterating the corresponding dynamic programming principles. (Received January 04, 2015)