

1063-35-247

Inwon C Kim*, Math Science building, UCLA, LA, CA 90095. *A degenerate diffusion with nonlocal drift: behavior of radial solutions.*

We will discuss a diffusion-aggregation equation given by

$$(P) \quad \rho_t - \Delta(\rho^m) + \nabla \cdot (\rho(\rho \nabla \Phi * \rho)) = 0 \text{ in } R^n \times [0, \infty)$$

where $m > 1$ and $\Phi : R^n \rightarrow R$ is a radially decreasing function. We will discuss various properties on radial solutions of (P), based on comparison-principle type arguments.

This is joint work with Yao Yao. (Received August 17, 2010)