

Blowup and self-similar solutions for two component drift-diffusion systems

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Asymptotic properties of solutions of two component parabolic drift-diffusion systems coupled through an elliptic equation in two space dimensions are discussed. In particular, conditions for finite time blowup versus existence of forward self-similar solutions are studied.

This is a joint work with Ignacio Guerra (Universidad de Santiago de Chile).

References

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- [2] *L. Paszkowski*: Self-similar solutions for the two-dimensional Nernst-Planck-Debye system. *Appl. Math. (Warsaw)* *39* (2012), 329–338.