

Improvement of Renormalization Group for Barenblatt Equation

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Abstract: We construct a Hartree-Fock (self-consistent)-like algorithm with renormalization group (RG) approach to calculate the anomalous dimension in a nonlinear diffusion equation. We find that our result improves the original RG work because we include the effect of Heaviside function.

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Key words: nonlinear diffusion, renormalization group, iterative approach

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