Some results on entire solutions of an elliptic system arising in phase separation

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SUMMARY

We study positive solutions of the elliptic system

$$\Delta u = uv^2, \qquad \Delta v = vu^2,$$

on the entire N-dimensional euclidean space (with $N \geq 2$).

We present some new results concerning the monotonicity and the one-dimensional symmetry of solutions with algebraic growth at infinity.

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