

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

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We study the positive solutions of the elliptic system

$$\begin{cases} \Delta u = uv^2 & \text{in } \mathbb{R}^N \\ \Delta v = vu^2 & \text{in } \mathbb{R}^N, \end{cases}$$

where $N \geq 2$.

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