

One-dimensional symmetry for entire solutions of an elliptic system arising in phase separation

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We consider positive solutions of the elliptic system

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

for every dimension $N \geq 2$.

I will present new one-dimensional symmetry results for solutions with at most algebraic growth at infinity.