

# Bifurcation of coherent structures in nonlocally coupled system

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Outlines for multi-Dimensions

We consider

$$u + \mathcal{K} * u = \mathcal{N}(u; \mu) \tag{0.1}$$

with  $u = u(x) : \mathbb{R}^n \rightarrow \mathbb{R}^p$ ,  $n < 6$ , need  $(\frac{n+2}{n-2} > 2)$ .

Assumptions on matrix convolution operator  $\mathcal{K}$  : radially symmetric, similar to 1-d case

(i)

(ii)