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Structure of the attractor for a non-local Chafee-Infante problem. (English) Zbl 1479.35132
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Summary: In this article, we study the structure of the global attractor for a non-local one-dimensional quasilinear problem. The strong relation of our problem with a non-local version of the Chafee-Infante problem allows us to describe the structure of its attractor. For that, we made use of the Conley index and the connection matrix theories in order to find geometric information such as the existence of heteroclinic connections between the equilibria. In this way, the structure of the attractor is completely described.

MSC:

- 35B41 Attractors
- 35K20 Initial-boundary value problems for second-order parabolic equations
- 35K59 Quasilinear parabolic equations
- 35R09 Integro-partial differential equations

Keywords:

reaction-diffusion equations; global attractors; structure of the attractor; Chafee-Infante equation

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