

Solution patterns for an Allen-Cahn model problem

Paul H. Rabinowitz

University of Wisconsin-Madison
rabinowi@math.wisc.edu

We will survey recent work with Jaeyoung Byeon on the structure of the set of solutions of an Allen-Cahn model for phase transitions. The simplest solutions are obtained as local minimizers of a corresponding energy functional. More complex solutions are obtained with the aid of heat flow arguments in invariant regions.