



## NONLOCAL TO LOCAL CONVERGENCE OF SINGULAR PHASE FIELD SYSTEMS OF CONSERVED TYPE

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**Abstract.** This paper deals with a singular nonlocal phase field system of conserved type. Colli–K. [Nonlinear Anal. 190 (2020)] have derived existence of solutions to a singular phase field system of conserved type. On the other hand, Davoli–Scarpa–Trussardi [Arch. Ration. Mech. Anal. 239 (2021)] have studied nonlocal to local convergence of Cahn–Hilliard equations. In this paper we prove existence of solutions to a nonlocal singular phase field system of conserved type whose kernel is not  $W^{1,1}$  and focus on nonlocal to local convergence of singular phase field systems of conserved type.

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Communicated by Editors; Received August 27, 2022

AMS Subject Classification: 35G31, 80A22.

Keywords: nonlocal to local convergence, singular phase field systems of conserved type, existence.