Asymptotic profiles of groundstates for a class of Choquard equations

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Abstract: We study the asymptotic behaviour of groundstates for a class of singularly perturbed Choquard type equations with a local repulsion term. We identify seven different asymptotic regimes and provide a characterisation of the limit profiles of the groundstates when perturbation parameter is small. We also outline the behaviour of groundstates when perturbation is strong. This is joint work with Zeng Liu (Suzhou, China).