

# The Ground States for Hartree-Fock Systems with a General Nonlinearity

Hua Jin<sup>1</sup> and Mingzhen Chen<sup>1</sup>

<sup>1</sup>China University of Mining and Technology

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## Abstract

We consider the least energy solutions of Hartree-Fock system with the coupling term  $\Phi_{u,v}$  in the two equations, and the nonlinearity are general subcritical with a small perturbation. By Nehari's manifold approach, the existence of non-trivial ground state solutions is obtained. The asymptotic behaviors with respect to parameters  $\lambda$  and  $\beta$  are also studied.

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