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Periodic solutions of an asymptotically linear Dirac equation. (English) Zbl 1368.35228
Ann. Mat. Pura Appl. (4) 196, No. 2, 717-735 (2017).

The paper addresses stationary solutions of a nonlinear Dirac equation in the three-dimensional space, including a potential term. By means of the variational methods and analysis of solutions around critical points, the existence of such spatially periodic solutions and their multiplicity are established.

Reviewer: [Boris A. Malomed \(Tel Aviv\)](#)

MSC:

[35Q40](#) PDEs in connection with quantum mechanics
[35B10](#) Periodic solutions to PDEs
[35A15](#) Variational methods applied to PDEs

Cited in 1 Document

Keywords:

[variational approximation](#); [multiplicity of solutions](#)

Full Text: [DOI](#)

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