

Olian Fannio, Laura

Multiple periodic solutions of Hamiltonian systems with strong resonance at infinity. (English) [Zbl 0989.37060](#)

Discrete Contin. Dyn. Syst. 3, No. 2, 251-264 (1997).

Summary: An asymptotically linear Hamiltonian system with strong resonance at infinity is considered. The existence of multiple periodic solutions is proved via variational methods in an equivariant setting. See also *M. Degiovanni* and *L. Olian Fannio* [Nonlinear Anal., Theory Methods Appl. 26, 1437-1446 (1996; [Zbl 0851.34047](#))].

MSC:

- 37J45 Periodic, homoclinic and heteroclinic orbits; variational methods, degree-theoretic methods (MSC2010)
- 34C25 Periodic solutions to ordinary differential equations
- 70H12 Periodic and almost periodic solutions for problems in Hamiltonian and Lagrangian mechanics
- 70H30 Other variational principles in mechanics

Cited in **13** Documents

Keywords:

asymptotically linear Hamiltonian system; strong resonance; existence of multiple periodic solutions; variational methods

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