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Quasi-periodic solutions of nonlinear elliptic partial differential equations. (English)

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Summary: In a recent paper [the author, Ergodic Theory Dyn. Syst. 8, 251-288 (1988; Zbl 0632.57018)] the KAM theory has been extended to nonlinear partial differential equations, to construct quasi-periodic solutions. In this article this theory is illustrated by three typical examples: an elliptic partial differential equation, an ordinary differential equation and a difference equation related to monotone twist mappings.

MSC:

[35J60](#) Nonlinear elliptic equations
[35B15](#) Almost and pseudo-almost periodic solutions to PDEs
[57R30](#) Foliations in differential topology; geometric theory
[37-XX](#) Dynamical systems and ergodic theory
[70K20](#) Stability for nonlinear problems in mechanics

Cited in **1** Review
Cited in **25** Documents

Keywords:

[KAM theory](#)

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