

Periodic orbits of a fourth–order non–autonomous differential equation

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We provide sufficient conditions for the existence of periodic solutions of the fourth–order differential equation

$$u'''' + qu'' + pu = \varepsilon F(t, u, u', u'', u'''),$$

where q , p and ε are real parameters, ε is small and F is a nonlinear non-autonomous periodic function with respect to t . Moreover we provide some applications.

References

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