

Exact solution of the cubic-quintic Duffing oscillator

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In this paper, we derive the exact solution of the cubic-quintic Duffing oscillator based on the use of Jacobi elliptic functions. We also showed that the exact angular frequency of this cubic-quintic Duffing equation is given in terms of the complete elliptic integral of the first kind. © 2012 Elsevier Inc.

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