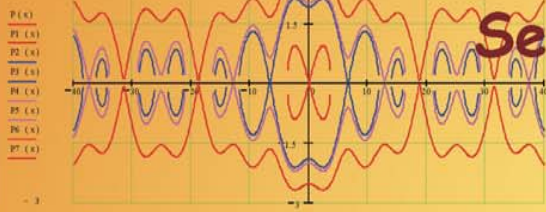


Naučno društvo Srbije



Serbian Scientific Society

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$$\begin{aligned} (\downarrow) r_r &= l [\cos \alpha \sin \varphi - \sin \alpha (1 - \cos \varphi)] \\ (\uparrow) r_r &= l \sin \varphi \cos \alpha (1 - \cos \varphi) \\ (\uparrow) r &= l [\sin \alpha (1 - \cos \varphi) - \sin \varphi \cos \alpha \cos \varphi] \end{aligned}$$

Symposium

Nonlinear Dynamics Milutin Milanković

Multidisciplinary and Interdisciplinary Applications

(SNDMIA 2012),

Belgrade, October 1-5, 2012.

(Eighth Serbian Symposium in area of Non-linear Sciences)



Approximate equations:

$$\begin{aligned} a^* \text{ for } \varphi = 0, \lambda > 1 \\ \ddot{\varphi} + \Omega^2 (\lambda - 1) \varphi &= \Omega^2 \lambda c t g \alpha \cos \Omega t \\ b^* \text{ for } \varphi_r = \pm \arccos \lambda, \lambda < 1 \\ \ddot{\varphi} + \Omega^2 \left(-\lambda^2 \left[1 + \frac{\lambda c t g \alpha}{\sqrt{1 - \lambda^2}} \cos \Omega t \right] \right) \varphi &= \Omega^2 \lambda c t g \alpha \cos \Omega t \end{aligned}$$

Belgrade, October 1-5, 2012.

Symposium Venue at Mathematical Institute SANU

$$\ddot{\varphi} + \Omega^2 (\lambda - \cos \varphi) \sin \varphi = \Omega^2 \lambda c t g \alpha \cos \varphi \cos \Omega t$$

Approximate equations:

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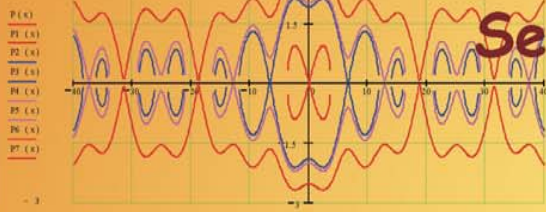
$$E_k = \frac{1}{2} m \dot{\varphi}^2 (\dot{\varphi}^2 + \Omega^2 \sin^2 \varphi)$$

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Symposium

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Belgrade, October 1-5, 2012.

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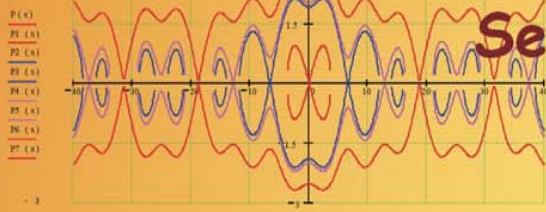
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