

***Periodic solutions and KAM tori in a triaxial potential***

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The existence and stability of periodic solutions for an autonomous Hamiltonian system in 1:1:1 resonance depending on two real parameters  $\alpha$  and  $\beta$  is established using reduction and averaging theories [1, 2, 3]. The different types of periodic solutions as well as the bifurcation curves of them are characterised in terms of the parameters. The linear stability of each periodic solution, together with the determination of KAM 3-tori encasing some of the linearly stable periodic solutions is proved.

REFERENCES

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