

Second fundamental model of resonance with asymmetric equilibria

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In 1994, Beauge presented a general analysis of the planar restricted three-body problem in the case of exterior resonances. Taking the Andoyer Hamiltonian in which harmonics up to order 2 are considered, he pointed out that asymmetric equilibria could appear in these resonances for many commensurabilities. The aim of our paper is to study the characteristics of the phase space using a semi-numerical method to compute the hamiltonian function. the new model can be seen as a extension of the second fundamental model of resonance (1982) : we also calculate critical curves and probabilities of capture.