METHOD FOR SPECIAL PERTURBATIONS

C.A.Altavista

A method for computing special perturbations has been devised.

At the present time we have only considered the case with three coplanar bodies.

Only one differential equation is to be solved. The radius vector $\underline{\mathbf{r}}$ is the dependent variable. The time has been taken as independent variable. The true anomaly $\underline{\mathbf{v}}$ is the remaining quantity to be disturbed. The corresponding set of equations are algebraic ones. The whole process is an iterative one. Special attention is to be paid for determining the most favorable cases for the applications.

HOMOGRAPHIC SOLUTIONS IN THE N BODY PROBLEM WITH AN ARBITRARY LAW OF

ATTRACTION

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Moulton's method has been applied again in order to get new solutions in this particular problem. Interesting cases are such ones in which n=5 and n=9 respectively. The first one is a generalization of plane case treated by Moulton and collaborators. The problem is trivial when the masses are all equal.

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