



ITAM

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Central configurations of the curved n-body problem

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There are many researches on the relative equilibria of the curved n-body problem in the past two decades. Following the practice of the n-body problem in R^3 , we refer to the initial configurations leading to relative equilibria as central configurations. This approach unifies and simplifies many researches on relative equilibria of the curved n-body problem. Then we discuss the existence and the counting number questions of central configurations. In particular, we extend Moulton's result on the number of geodesic central configurations to the curved n-body problem.