REGIONS OF EXISTENCE OF CRITICAL MOTIONS
FOR THE GENERALIZED KOVALEVSKAYA TOP

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The Hamiltonian system with three degrees of freedom describing the motion of the axially symmetric rigid body under the conditions of Kovalevskaya type in double force field is considered. We find the explicit inequalities that define the set of values of the first integrals for which critical integral manifolds are not empty. The result allows to give the complete classification of the bifurcation diagrams of the first integrals in involution in terms of their cross-sections by the planes of constant energy.