

ENERGY TERMS AND STABILITY
DIAGRAMS FOR THE $2D$ PROBLEM
OF THREE CHARGED PARTICLES

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S u m m a r y

Symmetric and antisymmetric terms have been obtained in the framework of the variational approach for two-dimensional ($2D$) Coulomb systems of symmetric trions XXY . Stability diagrams and certain anomalies arising in the $2D$ space are explained qualitatively in the framework of the Born–Oppenheimer adiabatic approximation. The asymptotics of energy terms at large distances obtained for an arbitrary space dimensionality are analyzed, and some approximation formulas for $2D$ terms are proposed. An anomalous dependence of multipole moments on the space dimensionality has been found in the case of a spherically symmetric field. The main results obtained for the $2D$ and $3D$ problems of two Coulomb centers are compared.