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Sommario/riassunto

Collisionless Plasmas in Astrophysics examines the unique properties of media without collisions in plasma physics. Experts in this field, the authors present the first book to concentrate on collisionless conditions in plasmas, whether close or not to thermal equilibrium. Filling a void in scientific literature, Collisionless Plasmas in Astrophysics explains the possibilities of modeling such plasmas, using a fluid or a kinetic framework. It also addresses common misconceptions that even professionals may possess, on phenomena such as "collisionless (Landau) damping". Abundant illustration