



## **A description of astrophysical shocks using adiabatic (CGL) invariants**

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In order to describe shocks appearing in many astrophysical systems, such as the solar wind termination shock, one typically applies the Rankine-Hugoniot-like jump conditions. However, in an MHD system with the presence of anisotropic plasmas, the jump conditions are undetermined. We present a new approach to this problem, based on the kinetic Boltzmann-Vlasov equation and a reformulation of adiabatic invariants, such as the conventional CGL invariants. This new approach allows us to describe shocks with an arbitrary inclination of the frozen-in magnetic field. This formalism allows us to close the jump conditions.