INTERSTELLAR SHOCK MODELS

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Shocks are ubiquitous in the interstellar medium, driven by cloud collisions, stellar jets and winds, and supernova remnants. I will present an introduction to the basic physics of shock waves and describe the various types of shock structure that can develop in the ISM, depending on shock speed and the ambient level of magnetization and irradiation : jump (J-type) shocks dominated by viscous friction, continuous (C-type) shocks dominated by ion-neutral drift, intermediate C* and C-J shocks, dissociative and ionizing shocks. I will discuss the typical predicted diagnostics, in particular with the Paris-Durham code for dusty molecular shocks.