



Figure 2.1: In non-central heavy ion collisions there is initial spatial anisotropy that the resultant collective pressure gradients evolve into anisotropy in momentum space. Hydrodynamics aims to quantitatively model this process to gain information on the medium and its properties. Figure adapted from [105].

generated by hydro was too large when compared to previous heavy ion experiments, those at RHIC matched quite well [106]; see Fig. 2.2. Unfortunately the HBT radii were not so well reproduced; see Fig. 2.3.

However the picture can never be this crystal clear. Hydrodynamics is a set of evolution equations; the initial conditions are input, and, not surprisingly, what comes out of hydro is highly dependent on what goes in; see Fig. 2.4. There have been some suggestions for testing the initial state [114, 115]; without good theoretical or, better, experimental control over the initial con-