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## Results on femtoscopy from hydrodynamics in pp collisions at $\sqrt{s} = 7$ TeV

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The hydrodynamical model has a long history in high-energy physics, being an essential tool for describing the collective behaviour of the matter produced in relativistic heavy-ion collisions at RHIC and LHC. Recently, experimental results have shown evidence of a similar collective behavior in small systems (pp and pPb collisions).

Bose-Einstein correlation or femtoscopy, are a powerful probe of the space-time geometry of the particle emitting source. In this work, a study of such correlations is performed using the hydrodynamical model in 2+1 dimensions. Both the ideal and the viscous (shear and bulk) fluid cases are considered. An equation of state inspired in lattice QCD results, with a crossover phase transition between the quark-gluon plasma and the hadronic phase, is employed. The results are compared with experimental data on pp collisions at  $\sqrt{s} = 7$  TeV.

### Content type

Theory

### Collaboration

### Centralised submission by Collaboration

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