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Higher order relativistic dissipative fluid dynamics for heavy ion collisions and astrophysics

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Relativistic fluid dynamics model is a useful tool in describing matter produced in heavy ion collisions at particle accelerators such as the Large Hadron Collider (LHC) and in astrophysical processes such as the core-collapse supernovae and neutron star collisions.

For the past two decades it has become clear that to describe transient phenomena in such processes using dissipative fluid dynamics one must use extended thermodynamics – also referred to as second order theories of relativistic dissipative fluid dynamics.

This talk will provide motivation for going beyond Navier-Stokes equations and for the need of higher order relativistic dissipative fluid dynamics to describe systems and process in heavy ion collisions and astrophysics.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

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