



Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES



Null Fluid : A new view to Galilean Fluid

NABAMITA BANERJEE
(IISER, Pune)

Date: November 5, 2015

Time: 11.30 am

Venue: A-304, TIFR

(Duration and Location are subject to irreducible jitter)

We construct a relativistic system, which we call null fluid and show that it is in one-to-one correspondence with a Galilean fluid living in one lower dimension. The correspondence is based on light cone reduction, which is known to reduce the Poincare symmetry of a theory to Galilean in one lower dimension. We show that the proposed null fluid and the corresponding Galilean fluid have exactly same symmetries, thermodynamics, constitutive relations, and equilibrium partition to all orders in derivative expansion.