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# Causality and stability in first-order conformal anisotropic hydrodynamics

*Friday 28 July 2023 14:50 (25 minutes)*

My talk focuses on the first-order dissipative anisotropic hydrodynamic theory of a relativistic conformal uncharged fluid, which generalizes Bemfica-Disconzi-Noronha-Kovtun's (BDNK) first-order viscous fluid framework. I explain how the well-known causality problem of Navier-Stokes hydrodynamics of Landau-Lifshitz and Eckart is remedied in the BDNK approach such that the theory also maintains causality in the nonlinear regime with or without general relativity coupling. As a result of outlining the approach, I discuss how causality and stability impose constraints on the behavior of the early-time attractor by applying our newly developed first-order anisotropic theory to the Bjorken flow.

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