Incomplete list of References for Aspects of QCD Thermodynamics and Kinetics

reported by Derek Teaney for

INT Summer School on Applications of String Theory

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I. LECTURE I: WHY VISCOSITY IS IMPORTANT IN HEAVY ION COLLISIONS AND HOW TO ESTIMATE IN QCD IN VARIOUS PHASES


2. New data on higher harmonic flow can be found at the Qaurk Matter 2012 conference web site.

II. LECTURE II: ELEMENTS OF KELDYSH DIAGRAM TECHNIQUE, THE FLUCTUATION DISSIPATION THEOREM, AND BLACK HOLES IN AND OUT OF EQUILIBRIUM

1. These notes. Seriously – read and work through the part on the harmonic oscillator and then take a look at these refs:


III. LECTURE III: MORE ABOUT BOLTZMANN IN EXTERNAL NON-ABELIAN FIELDS, AN OVERVIEW OF KINETIC THEORY OF HOT QCD


2. Clarified a lot of things for me: S. Caron-Huot, “Hard thermal loops in the real-time formalism,” JHEP 0904, 004 (2009) [arXiv:0710.5726 [hep-ph]]. This paper formed the framework for computing the heavy quark diffusion coefficient at next to leading order.


