HAW05-2005-000025

Abstract for an Invited Paper for the HAW05 Meeting of the American Physical Society

A NEARLY PERFECT INK: The strongly coupled quark-gluon plasma at RHIC

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The first three years of operation of the Relativistic Heavy Ion Collider (RHIC) at Brookhaven have taught us that collisions of two gold nuclei produce rapidly equilibrating matter, which flows almost like an ideal fluid, is opaque to hard partons, and shines brightly in baryons. I will discuss the implications of these results in the context of what we know about the properties of hot, strongly interacting matter. I will also outline (some of) the problems which await a theoretical explanation.