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The Golden Age for Studying Hot QCD Matter

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Twenty years ago, the study of hot QCD matter took off with the beginning of fixed target heavy ion experiments at the Brookhaven AGS and CERN SPS. Almost ten years ago, the center of mass energy of these collisions was increased by an order of magnitude with the completion of the Relativistic Heavy Ion Collider at Brookhaven. This jump in energy, the dedicated nature of the facility, and the investment in experiments has allowed for both a broad characterization and detailed probing of the hot QCD matter created. In the coming decade, critical detector and accelerator upgrades at RHIC, the coming online of the Large Hadron Collider at CERN, and other worldwide efforts will bring these studies into what can be termed a Golden Age. In this talk, we will review what has been learned, and suggest what may be revealed by future efforts.