

New Applications of the RHIC LLRF Platform (2): The BNL R & D Energy Recovery Linac LLRF System

Since late 2011, efforts have been underway to commission the major RF systems of the BNL R & D ERL. These are a 5-cell SRF linac cavity and a half cell SRF photo cathode RF gun, both at 703 MHz (RHIC $h=9000$). The LLRF system also supplies the 703MHz reference for the SRF gun drive laser operating at a rep rate of 9.4MHz (RHIC $h=120$). The R & D ERL systems are the first application of the RHIC LLRF Platform to control of SRF systems. This paper will discuss the LLRF system architecture, commissioning challenges and results to date.

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