

# Quark Matter 2019 - the XXVIIIth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions



Contribution ID: 548

Type: **Poster Presentation**

## **sPHENIX EMCal design, construction and test beam results**

*Monday 4 November 2019 17:40 (20 minutes)*

**Abstract:** The sPHENIX detector at BNL's Relativistic Heavy Ion Collider (RHIC) is designed to accurately study proton-proton, proton-nucleus, and nucleus-nucleus collision systems. The design of sPHENIX, including full azimuthal calorimeter coverage, will allow it to precisely study properties of the Quark Gluon Plasma through open heavy flavor production, jet modification, and Upsilon measurements. It will also perform a variety of cold QCD studies. Helping to enable the broad measurement capabilities of sPHENIX is the Electromagnetic Calorimeter (EMCal), which is the primary detector for identifying and measuring the energy of photons and electrons. The EMCal is constructed of scintillating fibers embedded in blocks of tungsten powder in an epoxy matrix, with the emitted light collected with acrylic light guides and read out through Silicon Photomultipliers (SiPMs). This poster will discuss the design and construction of the EMCal as well the results from a 2018 Beam Test.

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**Session Classification:** Poster Session

**Track Classification:** Future facilities and instrumentation