

Web Application for a Dual Readout Calorimeter Database

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(Dated: August 9, 2011)

ABSTRACT:

The Dual Readout Calorimeter Project hopes to find the best materials to make a Dual Readout Calorimeter, which measures the energy response to both Cherenkov and scintillation light, as accurate as possible. All of the data and plots from the simulations are stored in the Dual Readout Calorimeter Image Database, where every plot can be described by a category and various tag names and values. A Web application allows users to easily find, view, and analyze these plots. Every time a client makes a request, the Web application establishes a connection with the Structured Query Language (SQL) database, which uses prepared statements to quickly return information stored in the database. All of the information the client sees is displayed using JavaServer Pages (JSP), a language based on a combination of Java and HTML. The Web page also incorporates the JavaScript language to increase functionality and user-interactivity. This paper discusses the various programming components that are linked together behind-the-scenes to create the Web application the client actually sees, as well as a guide to using the different features.