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## **An integrated framework for the data quality assessment and database management for the ATLAS Tile Calorimeter**

*Monday, 14 October 2013 15:00 (45 minutes)*

The Tile calorimeter is one of the sub-detectors of ATLAS. In order to ensure its proper operation and assess the quality of data, many tasks are to be performed by means of many tools which were developed independently to satisfy different needs. Thus, these systems are commonly implemented without a global perspective of the detector and lack basic software features. Besides, in some cases they overlap in the objectives and resources with another one. It is therefore evident the necessity of an infrastructure to allow the implementation of any functionality without having to duplicate the effort while being possible to integrate with an overall view of the detector status.

Tile-in-ONE is intended to meet these needs, by providing a unique system, which integrates all the web systems and tools used by the Tile calorimeter, with a standard development technology and documentation. It also intends to abstract the user from knowing where and how to get the wanted data by providing a user friendly interface. It is based in a server containing a core, which represents the basic framework that loads the configuration, manages user settings and loads plugins at run-time; a set of services, which provide common features to be used by the plug-ins, such as connectors to different databases and resources; and the plug-ins themselves which provide features at the top level layer for the users. Moreover, a web environment is being designed to allow collaborators develop their own plug-ins, test them and add them to the system. To make it possible, an API is used allowing any kind of application to be interpreted and displayed in a standard way.

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