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## **Handling, monitoring, and recent improvements in data processing and Monte Carlo production in the CMS Experiment (25' + 5')**

*Saturday, 6 August 2016 17:15 (30 minutes)*

A Monte Carlo (MC) production for a large-scale experiment like CMS is a vast effort, extending to as many as 3000 individual samples to be produced, with different conditions (e.g., detector alignment), different inputs (e.g., partonshower vs ME generators) and many workflows (e.g., parametrized simulation vs detailed GEANT-based simulation). In run 1 there was a tight coupling of workflow classes to types of sites. This has been drastically relaxed in run 2 to maximize computing operational flexibility. This talk describes the strategy followed by the CMS experiment to collect, manage, process and track MC requests, as well as the tools written and deployed to satisfy the MC needs of each physics group with automated computing operations tools. In the presentation we highlight experiences gained with these tools during Run 2 data taking.

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