

Trigger-DAQ and slow control systems in the Mu2e experiment

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The muon campus program at Fermilab includes the Mu2e experiment that will search for a charged-lepton flavor violating processes where a negative muon converts into an electron in the field of an aluminum nucleus, improving by four orders of magnitude the search sensitivity reached so far.

Mu2e's Trigger and Data Acquisition System (TDAQ) uses `otsdaq` as its solution. Developed at Fermilab, `otsdaq` uses the `artdaq` DAQ framework and `art` analysis framework, under-the-hood, for event transfer, filtering, and processing.

`otsdaq` is an online DAQ software suite with a focus on flexibility and scalability, while providing a multi-user, web-based, interface accessible through a web browser.

A Detector Control System (DCS) for monitoring, controlling, alarming, and archiving has been developed using the Experimental Physics and Industrial Control System (EPICS) open source Platform. The DCS System has also been integrated into `otsdaq`.

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No, this is an entirely new submission.

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Primary author: GIOIOSA, Antonio (University and INFN Pisa)

Co-authors: DONATI, Simone (University of Pisa and Istituto Nazionale di Fisica Nucleare); MORESCALCHI, Luca (INFN - Pisa); PEDRESCHI, Elena (INFN Sezione di Pisa, Università e Scuola Normale Superiore, P); SPINELLA, Franco (INFN Sezione di Pisa, Università e Scuola Normale Superiore, P); BONVENTRE, Richard (Lawrence Berkeley National Laboratory); HORTON-SMITH, Glenn (Kansas State University); PEZZULLO, Gianantonio (Yale University); FLUMERFELT, Eric (Fermi National Accelerator Laboratory); O'DELL, Vivian; UPLEGGGER, Lorenzo (Fermilab); RIVERA, Ryan Allen (Fermi National Accelerator Lab. (US))

Presenter: GIOIOSA, Antonio (University and INFN Pisa)

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