

# The ATLAS multithreaded offline framework

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In preparation for Run 3 of the LHC, scheduled to start in 2021, the ATLAS experiment is revising its offline software so as to better take advantage of machines with many cores. A major part of this effort is migrating the software to run as a fully multithreaded application, as this has been shown to significantly improve the memory scaling behavior. This talk will outline changes made to the software framework to support this migration, as well as describe a static code checker used to assist in locating violations of thread-safety rules. Preliminary experiences in migrating reconstruction algorithms will also be discussed.

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