

# The Auger Offline Framework Software

*Friday 19 July 2024 09:04 (17 minutes)*

The Auger Offline Framework is a general-purpose C++-based software that allows the reconstruction of the events detected by the Pierre Auger Observatory. Thanks to its modular structure, the collaborators can contribute to the code development with their algorithms and sequencing instructions required for their analyses. It is also possible to feed the Auger Offline Framework with different Monte Carlo codes used to describe the longitudinal and lateral development of air showers and simulate the detectors' response using Geant4, embedded in the Offline code. Thanks to its high modularity and robustness, several modules of Offline Framework were shared with other experiments from a wide range of cosmic- and gamma-ray and particle detectors, ranging from JEM-EUSO and HAWC to NA-61. In this talk, we describe the Auger Offline Framework and its applications and discuss the challenges for the future.

## Alternate track

### I read the instructions above

Yes

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**Session Classification:** Computing and Data handling

**Track Classification:** 14. Computing, AI and Data Handling