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The First Release of ATLAS Open Data for Research

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The ATLAS Collaboration has released an extensive volume of data for research use for the first time. The full datasets of proton collisions from 2015 and 2016, alongside a wide array of matching simulated data, are all offered in the PHYSLITE format. This lightweight format is chosen for its efficiency and is the preferred standard for ATLAS internal analyses. Additionally, the inclusion of Heavy Ion collision data considerably widens the scope for research within the particle physics community. To ensure accessibility and usability, the release includes a comprehensive suite of software tools and detailed documentation, catering to a varied audience. Code examples, from basic Jupyter notebooks to more complex C++ analysis packages, aim to facilitate engagement with the data. This contribution details the available data, corresponding metadata, software, and documentation, and initial interactions with researchers outside the ATLAS collaboration, underscoring the project's potential to foster new research and collaborations.

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