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## **Dolosse - A Modern, Scalable, and Extensible Data Acquisition and Management System for Nuclear Physics Experiments**

*Friday 26 April 2024 09:40 (20 minutes)*

Dolosse, a project funded by the National Research Foundation, is an innovative open-source Data Acquisition System (DAQ) specifically designed to meet the sophisticated requirements of contemporary nuclear physics research. This framework facilitates a high-throughput, fault-tolerant streaming service capable of handling the 'Big Data' attributes—volume, velocity, and variety—that characterize modern experimental physics data streams. By integrating with state-of-the-art Big Data technologies, Dolosse offers a comprehensive solution for real-time data analysis, visualization, and system monitoring. The system's architecture promises enhanced data integrity, reduced latency, and increased throughput, thereby enabling more complex and data-intensive experiments. Dolosse is projected as a pivotal tool for future research advancements in the global nuclear physics community.

### **Minioral**

Yes

### **IEEE Member**

No

### **Are you a student?**

No

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