SciQLop: A Tool Suite for Multi-Mission High-Resolution In-Situ Data Analysis in the Heliophysics Community

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Abstract

Analyzing multi-instrument, multi-mission in-situ space physics data presents significant challenges, hindering scientific progress. The **SCI**entific **Q**t application for **L**earning from **O**bservations of **P**lasmas (SciQLop) addresses these challenges by providing a comprehensive tool suite for simplified data discovery, retrieval, visualization, and analysis. SciQLop facilitates access to data from remote servers like **CDAWeb** and **AMDA** via tools like **Speasy**. Crucially, SciQLop integrates with event catalogs through TSCat and its associated GUI, allowing users to define and search for specific events and then seamlessly access the corresponding data across multiple instruments and missions. This poster demonstrates how SciQLop facilitates massive in-situ data analysis and event-based studies, empowering researchers to focus on scientific interpretation and accelerate discovery in space physics.

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