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Decay Selector: A web-based tool for Amplitude exploration

We present an web-based platform for Amplitude Analysis, designed to facilitate the exploration of multi-body decays. In such analyses, the large number of possible decay chains often presents a significant challenge in constructing amplitudes.
Our tool offers a user-friendly graphical interface (GUI) that enables efficient sorting, filtering, filling, and validation of decay chains. Previously saved setups can be easily uploaded and resumed, allowing for a seamless continuation of work. Integration with the Particle Data Group (PDG) API enables quick inclusion of known resonances. Configurations can be saved and exported both as JSON files and as executable code within a custom framework using the helicity formalism to parameterize the angular structure of the amplitudes. We aim to collaborate with other developers to support multiple frameworks through dedicated parsers, thereby broadening the tool’ s applicability to the wider amplitude analysis community.

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