DecaySelector

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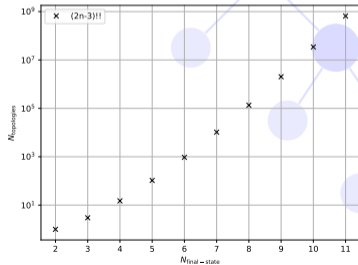# The Problem

Partial Wave Analysis

- ▶ Needed to disentangle Resonances in hadronic processes
- ▶ Angular description

Frameworks

- ▶ Many different Frameworks
- ▶ All have different strengths
- ▶ Usage is verry different

Cascade Decay Model

- ▶ N-body decay modeled as consecutive 2-body decays
- ▶ $(2N - 3)!!$ topologies
- ▶ Keping overview almost impossible for $N > 3(4)$

Proposed Solution

Add filter for specific nodes

Select final/initial state Quatnum Numbers

Select decay tree

Inspect chains for that tree

Info messages and settings

Validate current state

Generate code for the amplitude and install helper

Add resonances by clicking on subsystem nodes

Load/Save from/to JSON

Nodes in current tree are highlighted

Thank you for listening!

https://kaihabermann.github.io/DecaySelector/

Try out the Prototype!

Add your own parser!