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Partial wave analysis with the PAWIAN software package

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PAWIAN is a powerful, user-friendly and highly modular partial wave analysis software package with the aim to support analyses for a multitude of different physics cases at hadron physics experiments. Real data originating from the $p\bar{p}$ annihilation process and from e^+e^- reactions are currently under investigation with PAWIAN. The software is written in C++ and follows an object-oriented approach with a wide range of flexibility. The code therefore allows to be easily extended for further decay models, complete amplitudes or other descriptions for the dynamics.

After an overview of the general features and capabilities of PAWIAN, some recent improvements concerning the treatment of analyticity and unitarity as well as the extraction of pole positions will be discussed on the example of a coupled channel analysis based on $p\bar{p}$ annihilation data together with $\pi\pi$ -scattering data.

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