

## Status of the ComPWA Framework

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A large part of the programs of hadron physics experiments deal with the search for new conventional and exotic hadronic states like e.g. hybrids and glueballs. In a majority of analyses a Partial Wave Analysis (PWA) is needed to identify possible exotic states and to classify known states. Of special interest is the comparison or combination of data from multiple experiments. Therefore, a new, agile, and efficient PWA framework *ComPWA* is being developed. It is modularized to provide easy extension with models and formalisms as well as fitting of multiple datasets, even from different experiments. It provides various modules for fitness estimations and interfaces to the optimization routines from the Minuit2 and the Geneva libraries are currently implemented. The modularity allows complex fit methods like e.g. the model-independent extraction of partial waves. The software aims on the analysis of data from today's experiments as well as on data from future experiments like e.g. Panda@Fair. Currently ComPWA is used for a model-independent extraction of scalar resonances in radiative  $J/\psi$  decays and a D-meson Dalitz plot analysis with data from the BESIII experiment. An update on the status of the ComPWA framework is presented and an overview of the first analyses is given.

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### Primary Keyword (Mandatory)

Analysis tools and techniques

**Primary author:** MICHEL, Mathias (Helmholtz Institute Mainz)

**Co-authors:** NERLING, Frank (Johannes-Gutenberg-Universitaet Mainz (DE)); GOETZEN, Klaus (GSI Darmstadt); PETERS, Klaus (Institut fuer Experimentalphysik I); FRITSCH, Miriam; WEIDENKAFF, Peter; KLIEMT, Ralf (GSI); PFLUEGER, Stefan; GRADL, Wolfgang (University of Mainz)

**Presenter:** MICHEL, Mathias (Helmholtz Institute Mainz)

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