

Complete experiments, truncated partial-wave analyses and Bayesian inference

Thursday, June 8, 2023 3:00 PM (20 minutes)

The talk will summarize and relate different ideas from the field of complete-experiment analyses, both for full spin-amplitudes and for partial waves, for the illustrative example of single pseudoscalar-meson photo-production. Then, the notion of a complete experiment as a minimal set of measurements sufficient to predict all other possible experiments will be reinterpreted using modern methods from Bayesian inference. It will be argued that many of the facts found are generic for all $2 \rightarrow 2$ reactions among particles with spin.

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Session Classification: Analysis tools

Track Classification: Analysis tools