Workshop: Strategies for Data Science and Data Management



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The bound states of the strong interaction - Baryon spectroscopy @ ELSA

The bound states of the strong interaction of hadrons is one of the worst understood areas of the standardmodel of particle physics. Main questions are how the strong interaction produces its massive bound states from almost massless quarks and which (exotic) hadrons do exist. In order to investigate this, experiments are carried-out at ELSA and other accelerators in the world.

This poster describes the CBELSA/TAPS experiment at ELSA which is designed to do light baryon spectroscopy using real high energetic photons. The current and near future experiment tasks are to study photoproduction of the neutron and multi-meson photoproduction. An estimate of the amount of data acquired is given in order to evaluate the current demands for data storage and computing. Plans for future upgrade of the experiment allow studies of strange baryons. This requires higher performance in computing and data storage. Estimated demands are shown.

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