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Feasibility of model-independent reconstruction of the amplitudes of the pp elastic scattering matrix at the SPASCHARM facility at U70

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Abstract. The concept design of the SPASCHARM experiment setup allows us to measure non-vanishing observables for direct reconstruction of the pp elastic scattering amplitudes at the energy of 16 GeV. We discuss experimental measurements required to extract all amplitudes for two types of polarized target and polarized proton beam.

Realistic simulation was carried out to estimate accuracy and required time to measure analyzing power of the pp-scattering at the SPASCHARM experiment.

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