2019 Workshop on Polarized Sources, Targets, and Polarimetry



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Experiments with Frozen Spin Target at MAMI

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The A2-Collaboration at the Mainz Microtron MAMI measures photon absorption cross sections using circularly and linearly polarized 'Bremsstrahlung' photons up to an energy of ~1.5GeV. We use a 4 π detection system with the 'Crystal Ball' as central part.

We have developed a Frozen Spin Target in close collaboration with the polarized target group of the Joint Institute for Nuclear Research in Dubna, Russia. The 3/4Helium dilution refrigerator provides temperatures down to 25 mKelvin. Both longitudinally and transversely polarized protons and deuterons are possible with the help of superconducting holding coils.

In this talk our experimental program using Frozen Spin Targets will be described.

Summary

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