Muon g-2 and pEDM experiments at CAPP/IBS

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The precise measurement of the muon anomalous magnetic moment is very important to check the possibilities of physics beyond the Standard Model. The new muon g-2 experiment at FNAL aims to measure the muon anomalous magnetic moment with four times better precision than previous experiment at BNL and plans to start the experiment at 2017.

The Storage Ring proton EDM experiment has a New Physics sensitivity in the range of $10^3 - 10^4$ TeV. Using techniques similar to the classical muon g-2 experiment we can probe the proton EDM with high sensitivity. This is due to high intensity polarized proton beams readily available as well as the long spin coherence life-time possible in all-electric rings.

There are a few important technical issues for both experiments that we are addressing. The principle, experiment techniques and CAPP/IBS contributions for both experiments will be presented.

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