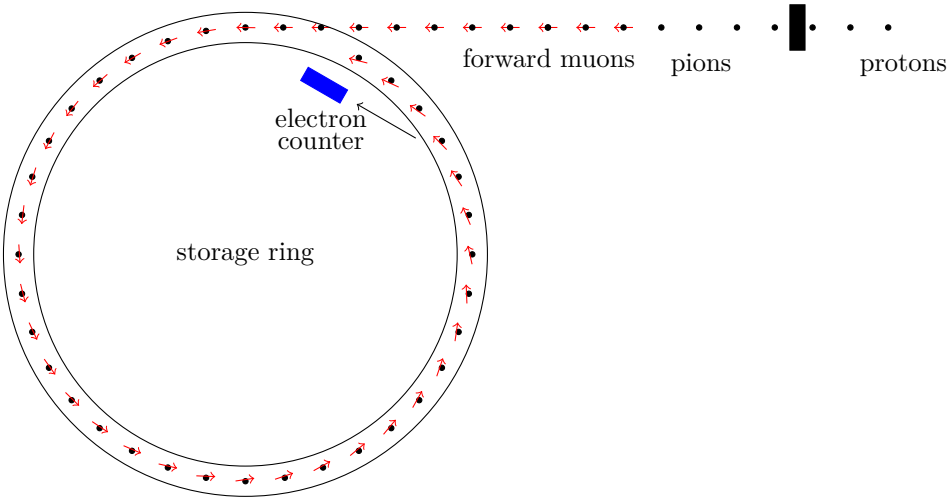

Figure 1: Schematic of the $g-2$ muon storage ring experiment. High-energy protons hit a target, producing secondary pions. These latter shortly decay into muons (and neutrinos). The muons are polarized. The arrows symbolize the muon spin direction. Muons of a given momentum are trapped in the storage ring until they decay. The decay electron is analyzed to determine the muon polarization. At every turn, the angle between the momentum and the spin of the muon increases due to the anomalous $g-2$ term, as schematically illustrated.