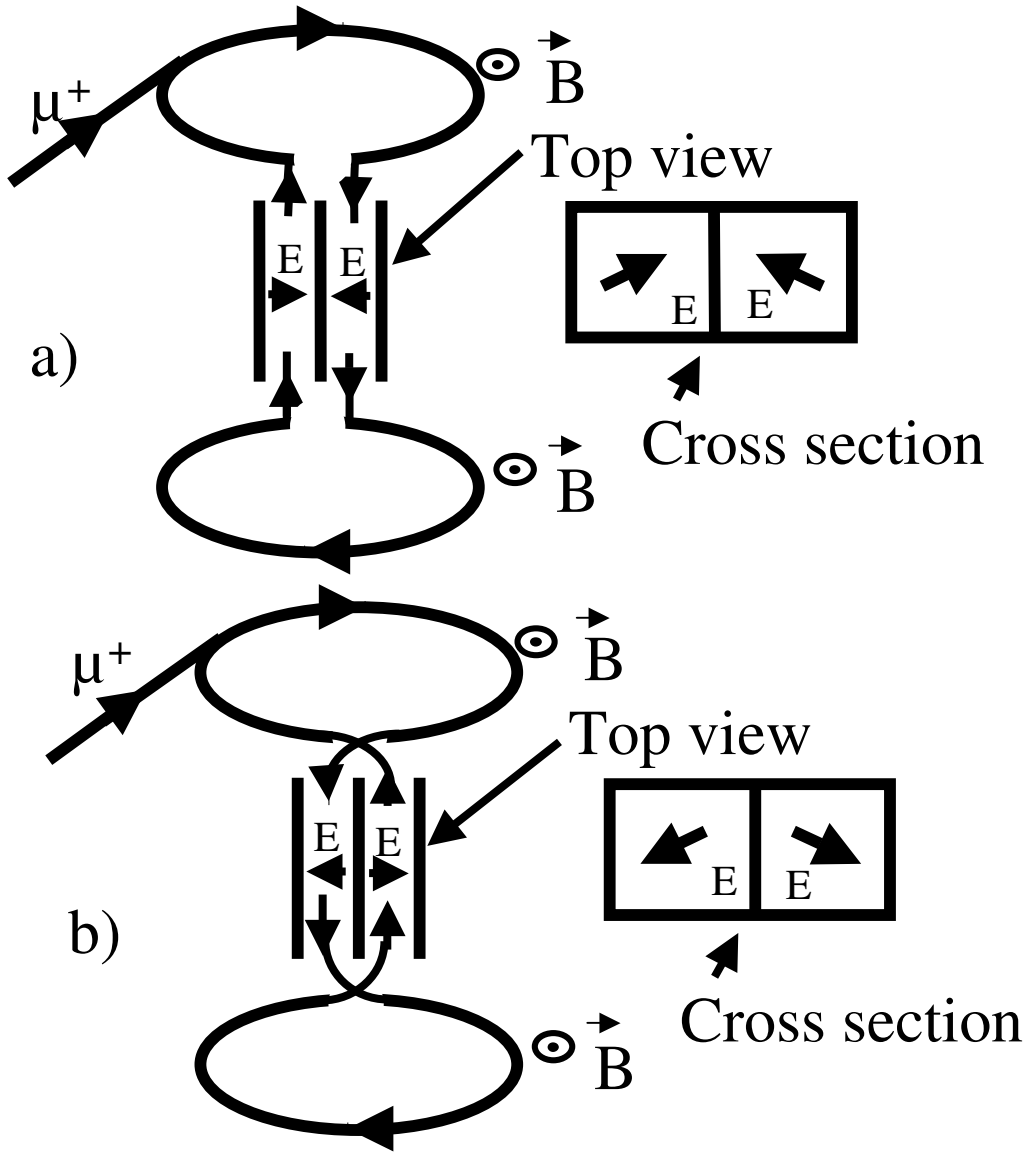

Figure 2: The top view (and cross section of the E-field shown here with a net misalignment) of the various ring configurations in a dedicated muon EDM experiment.
a) The E-field region is only present in the "straight" section and the field direction is such that it complies with the requirement of fig. 1 to cancel (or more correctly to reduce) the g-2 rotation. The background is present only when there is a net vertical E-field which is compensated by a radial magnetic field.
b) The E-field direction is flipped and the muon beam direction also changes to comply with the requirement of fig 1. In this case the vertical E-field component is opposite to (a) and the effect to the spin is cancelled.