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## **Study of systematic effects mimicking EDM signal combining measurements from counter-rotating beams**

*Monday, 8 May 2023 16:30 (2 hours)*

Optimization and realistic estimates of the sensitivity of the measurement of charged particle Electric Dipole Moment (EDM) in storage rings require a good understanding of systematic errors that can contribute to a vertical spin build-up mimicking the EDM signal to be detected. A specific case of systematic effect due to offsets of electrostatic bendings and longitudinal magnetic fields is studied. Spin tracking simulations to investigate whether this special case generates spin rotations, which cannot be disentangled from the ones due a finite EDM by combining observations made with both counter-rotating beams as predicted by analytical derivations, will be presented.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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