Contribution ID: **149** Type: **Parallel**

Towards a determination of the quark-chromo EDM with the gradient flow

Tuesday, July 24, 2018 2:20 PM (20 minutes)

The quark-chrom EDM (qCEDM) is a dimension 5 operator parametrizing at low energy BSM contributions to a non-vanishing EDM.
We discuss the implementation of the qCEDM with the gradient flow and show preliminary results for the flow-time dependence of the CP-violating mixing angle α_N induced by the qCEDM between nucleon states. These results are computed on the $N_f = 2 + 1$ coarse lattice $16^3 \times 32$ with lattice spacing ($a \simeq 0.1215 fm$). We use Wilson-clover fermion with $\kappa = 0.13825$ and $c_{SW} = 1.761$.

Primary author: Dr KIM, Jangho (NSCL & Michigan State University)

Co-authors: SHINDLER, Andrea (Michigan State University); Dr DRAGOS, Jack (FRIB NSCL MSU); Dr DE VRIES, Joris (Nikhef); Prof. LUU, Thomas (Forschungszentrum Jülich/University of Bonn)

Presenter: Dr KIM, Jangho (NSCL & Michigan State University)

Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements