Contribution ID: **3** Type: **not specified**

Neutron electric dipole moment using lattice QCD

Monday 1 August 2022 12:00 (1 hour)

We present results on the neutron electric dipole moment |□□□| using an ensemble of □□=2+1+1 twisted mass clover-improved fermions with lattice spacing of □□0.08 fm and physical pion mass (□□□139 MeV). We compute the □□-odd electromagnetic form factor □3(□2⟶0) by expanding the action to leading order in □. This gives rise to correlation functions that involve the topological charge, for which we employ a fermionic definition by means of spectral projectors. We find a value of
|□□□|=0.0009(24) □ □·fm.

Presenter: Prof. ALEXANDROU, Constantia (University of Cyprus)