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Smearing Center Vortices

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We present a method to smear (center projected) Z(2) vortices in order to obtain properties of the original (full) SU(2) configurations. In particular we address the problem that Z(2) configurations cannot be treated with overlap (or chirally improved) fermions due to their lack of smoothness. We develop a method to regain this smoothness and simultaneously maintain the center vortex structure. We verify our method with various gluonic and fermionic observables.

Primary authors: Prof. ENGELHARDT, Michael (NMSU); Mr HOELLWIESER, Roman (NMSU)Presenter: Mr HOELLWIESER, Roman (NMSU)Session Classification: Vacuum Structure and Confinement

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