

**Localization properties of low lying eigenmodes of overlap fermions
in $T = 0$ gluodynamics**

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Abstract: We study the localization properties of low lying eigenmodes of overlap fermions on zero-temperature quenched configurations generated by the QCDSF-UKQCD collaboration by means of the Luescher-Weisz action. We investigate the two-point correlation function of the topological charge density, as well as the inverse participation ratio, as a function of the numbers of eigenmodes and its scaling properties.