

**Eigenmodes of Covariant Laplasian in SU(2) Yang-Mills vacuum:  
higher representations**

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Abstract: Study of covariant Laplasian lowest eigenmodes [hep-lat/0504008] revealed their specific localization properties. These may have an impact on confinement of fundamental scalar particles in SU(2) Yang-Mills vacuum. It was expected that scalar particle eigenmodes in another representation would be localized on different physical volume. However simulations show qualitatively different results for adjoint and higher ( $T=3/2$ ) representations. Apart from much higher extent of localization, there is also an evidence of different scaling behavior of localized eigenmodes.