

Holography, 1-Form Symmetries, and Confinement

Tuesday 21 September 2021 10:15 (15 minutes)

I will discuss confinement in 4d $\mathcal{N} = \infty$ $SU(N)$ Super-Yang Mills from a holographic point of view, focusing on the 1-form symmetry and its relation to chiral symmetry breaking. We will see how to identify the topological couplings that determine the 1-form symmetry and its 't Hooft anomalies from the 5d supergravity dual, obtained by truncation of the Klebanov-Strassler solution. One such coupling is a mixed 0-/1-form symmetry anomaly closely related to chiral symmetry breaking in gapped confining vacua. Finally, we will derive the IR 4d topological field theory, which realises chiral symmetry breaking and matches the mixed anomaly, from the dual gravity description.

Do you wish to attend the workshop on-site?

yes

Summary

Primary authors: VAN BEEST, Marieke (University of Oxford); APRUZZI, Fabio (University of Oxford); SCHAFER-NAMEKI, Sakura (University of Oxford); S. W. GOULD, Dewi (University of Oxford)

Presenter: VAN BEEST, Marieke (University of Oxford)

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