

William Harding. Wreathed Quivers and Non-Invertible Symmetries

Tuesday, 10 September 2024 11:50 (40 minutes)

This talk focuses on 3d $N=4$ wreathed quivers, where the wreathing technique involves gauging the automorphism group, or a subgroup thereof, of a given quiver. In particular, I will introduce a prescription for obtaining the superconformal index of wreathed quivers. I will focus on the mirror theory of 3d $N=4$ SQCD with four flavours, namely the affine D_4 quiver, and consider its wreathing by subgroups H of S_4 . Importantly, wreathing by a non-Abelian H gives rise to a non-invertible symmetry characterised by $2\text{-Rep}(H)$. Furthermore, the index can be refined with the generators of certain Abelian subgroups of H , allowing to gauge the different subgroups in various orders and obtain intricate (non-invertible) symmetry webs. Various physical phenomena, such as mixed anomalies and two-groups, can also be detected thanks to the index.