



Contribution ID: 31

Type: **not specified**

## Geometry of Higher Symmetries on (Non-) Compact F-/M-theory

*Wednesday, 5 July 2023 09:00 (30 minutes)*

By studying M-theory on singular non-compact special holonomy spaces  $X$  we demonstrate, via a process of cutting and gluing of singularities that extend to the boundary of  $X$ , the appearance of 0-form, 1-form and 2-group symmetries in the resulting supersymmetric quantum field theory. By employing gluing techniques we study the fate of these symmetries when these spaces become compact. We highlight prototype examples of elliptically fibered non-compact Calabi-Yau manifolds, dual to (non-) compact F-theory constructions, where we can compare these results with those encoded in the arithmetic structure of elliptic curves.

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**Session Classification:** Plenary

**Track Classification:** Plenary Session: Plenary