Center 1-from symmetries in higher dimensions

Thursday 24 September 2020 15:50 (20 minutes)

In this talk I will summarize recent results on the fate of center 1-form symmetries in six and eight dimensions. In particular, I will discuss their interplay between other gauged higher-form symmetries causing obstructions to the gauging of the discrete center 1-form symmetries, which would result in non-simply connected non-Abelian gauge groups. In this way we can find previously unknown consistency conditions for quantum theories of gravity. For eight dimensions these have a geometrical interpretation in terms of F-theory on elliptically fibered K3s.

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