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Title: Duality, Geometry and Spacetime

In string theory one assumes that elementary particles are not point like but rather little strings (higher dimensional objects, called branes, appear as well). A string like object perceives geometry (e.g. the ambient spacetime) in a very different way than what a point particle does. This gives rise to the concept of “dualities”, two (or more) seemingly very different theories can actually describe the same physics. To get a systematic handle on these dualities this project aims at developing new geometric notions which form a radical departure from the classical conventional viewpoint thereby providing insights into the emergent nature of space.

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