



# Elliptic Fibrations and F-theory

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I will introduce the mathematics of F-theory, a branch of string theory that relies on the rich structure of elliptic fibrations to model certain non-perturbative phenomena. F-theory provides a unique point of view on the geometry of elliptic fibrations, their degenerations and their relations to representation theory and topological invariants of singular spaces.

## Biography

Jonathan Mboyo Esole is a Benjamin Peirce Fellow in the Mathematics Department at Harvard University and a member of the Harvard University Center for the Fundamental Law of Nature. He is interested in the interface of mathematics and physics, especially the study of geometric and arithmetic aspects of string theory.