



# *E I N L A D U N G*

im Rahmen des Seminars für Mathematische Physik  
(Joint TU/UV Theory Seminar)

zum Vortrag  
von

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über

***„Lifting BPS States on K3 and Mathieu Moonshine“***

**Abstract:**

The elliptic genus of K3 is an index for the 1/4-BPS states of its sigma-model. At the torus orbifold point there is an accidental degeneracy of such states. We blow up the orbifold fixed points and show that this fully lifts the accidental degeneracy of the 1/4-BPS states with dimension  $h=1$ . Thus, at a generic point near the Kummer surface the elliptic genus measures not just their index, but counts the actual number of these BPS states. Finally, we comment on the implication of this for symmetry surfing and Mathieu moonshine.

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Boltzmanngasse 5, 5. Stock

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