

Much ado about Mathieu

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Abstract

Eguchi, Ooguri and Tachikawa observed a couple years ago that the elliptic genus of type II string theory on K3 appears to possess a Moonshine for the largest Mathieu group. More recently, Gaberdiel, Hohenegger and Volpato proposed that it actually lifts to the largest Conway group. My talk begins with a review of this Mathieu-Conway Moonshine. I then prove that indeed the class functions of Eguchi et al are true characters of M_{24} , and establish their relation to C_{00} .