

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 28.11.2019, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Prof. Saul Ramos-Sanchez

(Universidad Nacional Autónoma de México and Physik Department, TUM)

A taste of flavor symmetries in semi-realistic string models

Discrete symmetries have been proposed as an answer to some of the questions in flavor physics, such as the origin of mixtures and mass hierarchies of leptons and quarks. In bottom-up models, the symmetries, the matter fields and their charges are imposed by hand. Defined by a constrained set of parameters, semi-realistic string compactifications are naturally endowed with discrete symmetries that take the form of flavor groups, offering a plausible fundamental source of flavor physics. In this talk, we study the flavor symmetries emerging in orbifolds of the E8xE8 heterotic string that exhibit promising features for (supersymmetric) particle physics. After classifying the (non-Abelian) flavor symmetries that appear in the most general case, we discuss aspects of flavor phenomenology that accompany some particular string models. We also present how the recently introduced modular flavor symmetries are built within this scope and what their advantages are.

gez. Peter Thirolf
Tel. 289-14064

gez. Norbert Kaiser
Tel. 289-12367