Planck 2013
 <h2>From the Planck Scale to the Electroweak Scale</h2>

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CP and Discrete Flavour Symmetries

Wednesday 22 May 2013 16:20 (15 minutes)

We discuss issues surrounding the definition of CP transformations in theories with discrete flavour symmetries. We will show that the consistency of the theory implies that every generalised CP transformation can be interpreted as a representation of an automorphism of the discrete group. Using this formalism, we will discuss various approaches that try to derive CP phases from geometrical properties of groups. In particular, we will clear up issues concerning recent claims about geometrical CP violation in models based on T', clarify the origin of 'calculable phases' in Delta(27) and explain why apparently CP violating scalar potentials of A4 result in a CP conserving ground state. based on http://arxiv.org/abs/1211.6953 , to appear in JHEP

Presenter: HOLTHAUSEN, Martin

Session Classification: Parallel Session on Flavor Physics + Composite Models