

Portoroz 2013: Probing the Standard Model and New Physics at Low and High Energies

Contribution ID: 15

Type: **not specified**

CP phases from non-abelian discrete symmetries

Monday 15 April 2013 12:06 (22 minutes)

I will discuss possibilities to predict CP phases in the lepton sector with the help of non-abelian discrete flavour symmetries (and CP symmetries). I will show that the breaking of a non-abelian discrete flavour group to residual symmetries in the charged lepton and neutrino sectors not only allows for predictions of the mixing angles, but also of the Dirac phase. Furthermore, I will present an approach in which a non-abelian discrete flavour group and a CP symmetry are broken in such a way that the residual symmetry in the neutrino sector is $Z_2 \times CP$. In the latter case, all three CP phases, the Dirac and the two Majorana phases, are given in terms of a single parameter. Also lepton mixing angles turn out to be a function of only this parameter. Thus the latter approach is very predictive.

Author: HAGEDORN, Claudia (University of Padua and SISSA)

Presenter: HAGEDORN, Claudia (University of Padua and SISSA)

Session Classification: Flavor and CP II