## Phenomenology 2014 Symposium



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## **Majorana Physics in the Flavor Ring**

Monday, 5 May 2014 17:15 (15 minutes)

In this talk, we introduce the idea of the "Flavor Ring", a framework in which the simultaneous consideration of ideas from Grand Unification and flavor observables allow one to constrain models of flavor. Focusing on the neutrino sector and assuming the seesaw mechanism, we show how relations from SO(10) and the assumption of a diagonal up-quark Yukawa matrix, natural in terms of a family symmetry, can lead to a special form for the Majorana matrix. This matrix is compelling and predictive, and can be naturally realized through the family symmetry  $Z_7$ 

 $rtimesZ_3$ . We provide an underlying theory from which this matrix may be obtained.

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