



Contribution ID: 63

Type: **not specified**

## Particle Physics on the lattice

*Thursday, 19 May 2016 14:40 (40 minutes)*

We discuss the relevance of lattice computations in precision tests of the Standard Model, with emphasis on heavy Flavor Physics and Higgs Physics. After a short introduction to the lattice methodology, we present recent computations of low energy hadronic parameters (decay constants and form factors) and quark masses. We do that by describing the FLAG initiative, its scope and the choice of rating criteria used to assess the quality of different calculations. That should make clear that the precision reached for a number of quantities is such that electromagnetic (EM) corrections, beyond the point-like approximation, are becoming relevant. We discuss recent computations of the spectrum based on direct simulations of QED+QCD. We also present theoretical developments for including EM effects in leptonic decays.

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**Session Classification:** Plenary 19 pm