

## XIIIth Quark Confinement and the Hadron Spectrum



Contribution ID: 286

Type: **Invited talk**

### Quark masses from lattice QCD

*Thursday, August 2, 2018 5:20 PM (30 minutes)*

Quark masses are fundamental parameters of the standard model that are key for our understanding of the natural laws. Light quark masses give valuable information on the flavor structure of natural laws and on the nature of spontaneous chiral symmetry breaking. The masses of the heavy charm and bottom quark play a key role in the theoretical predictions of the Higgs boson decay rates. Due to confinement, free quarks are never observed in experiments, making a direct experimental determination of these parameters impossible. Lattice QCD offers a unique tool to relate the value of quark masses with well measured experimental quantities like meson masses. In this talk I will give an overview of the efforts of the lattice community in determining precise and accurate values for the quark masses.

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**Session Classification:** Light quarks

**Track Classification:** B: Light quarks