



Contribution ID: 380

Type: **Talk**

## Progress in the calculation of $\epsilon'$ on the lattice

*Thursday, July 28, 2016 4:50 PM (20 minutes)*

We discuss recent progress by the RBC & UKQCD collaborations in the lattice calculation of the measure of Standard Model direct CP violation,  $\epsilon'$ , with physical kinematics. We present results with improved systematic errors resulting from the use of step-scaling to reduce the renormalization error, an analysis that also takes into account the one-loop-suppressed mixing with the  $G_1$  two-quark operator. We also review our progress in decreasing the dominant statistical error on our result.

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**Session Classification:** Weak Decays and Matrix Elements

**Track Classification:** Weak Decays and Matrix Elements