

Project 1/2014: **"EOS: Global fits of rare B meson decays"**

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Abstract:

We perform a Bayesian analysis of FCNC B-meson decays to test the Standard Model (SM) and search for possible new physics. Contrary to competing analyses, we include all theory uncertainties as nuisance parameters (~ 30) allowing to obtain in addition information on nonperturbative QCD effects. We analyze most recent measurements based on 2011 data from ATLAS, CMS, and LHCb, some of which show sizable deviations from SM expectations at the $(2-3)\sigma$ level in some observables. Our aim is to finish a revised version of arXiv:1310.2478 with new input from lattice QCD, and to continue the fits as the analysis of the 2012 LHC data with at least twice as many events will be released in 2014.