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## Anatomy of a six-parameter fit to the b to s l+ lanomalies

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Discrepancies between measurements of decay modes with an underlying quark level transition  $b \rightarrow s\ell^+\ell^$ and the corresponding standard model predictions have persisted for several years, particularly for the muon channels. Some of the largest deviations from the SM occur for the low  $q^2$  bins of the observable dubbed  $P'_5$  as well as for branching ratios for the channel  $B_s \rightarrow \Phi \mu \mu$ , although the anomalies found in  $R_K$  and  $R_{K^*}$  are also very attractive since they make a case for lepton flavour universality violation. The apparent inadequacy of the SM becomes more compelling from the point of view of a global fit. For example, the authors of arXiv:1704.05340 have described 175 observables in terms of six parameters encoding new physics and have quantified the disagreement with the SM at about the  $5\sigma$  level, considering in detail certain one and two parameter fits. In this talk I will discuss the full six-dimensional fit, defining metrics to quantify in detail where the deviations from the SM occur and presenting a visualization of some results in the six-dimensional parameter space. This allows exploring the relation between single observables and the parameter space in the context of the global fit, and in particular also in the context of important correlations between observables.

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