ZPW 2018
Round Table: theory errors on the anomalies

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LAPTh Annecy

Main themes

- *How reliable are the SM TH predictions on which we base the evidences of anomalies*
- *How reliably can we extract New-Physics information*

TH errors: Apples vs. Oranges

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- *BR-like observables*

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- *Non-log e.m. effects are ~ $\alpha / \pi \cdot$ (a few) ~ 1%*

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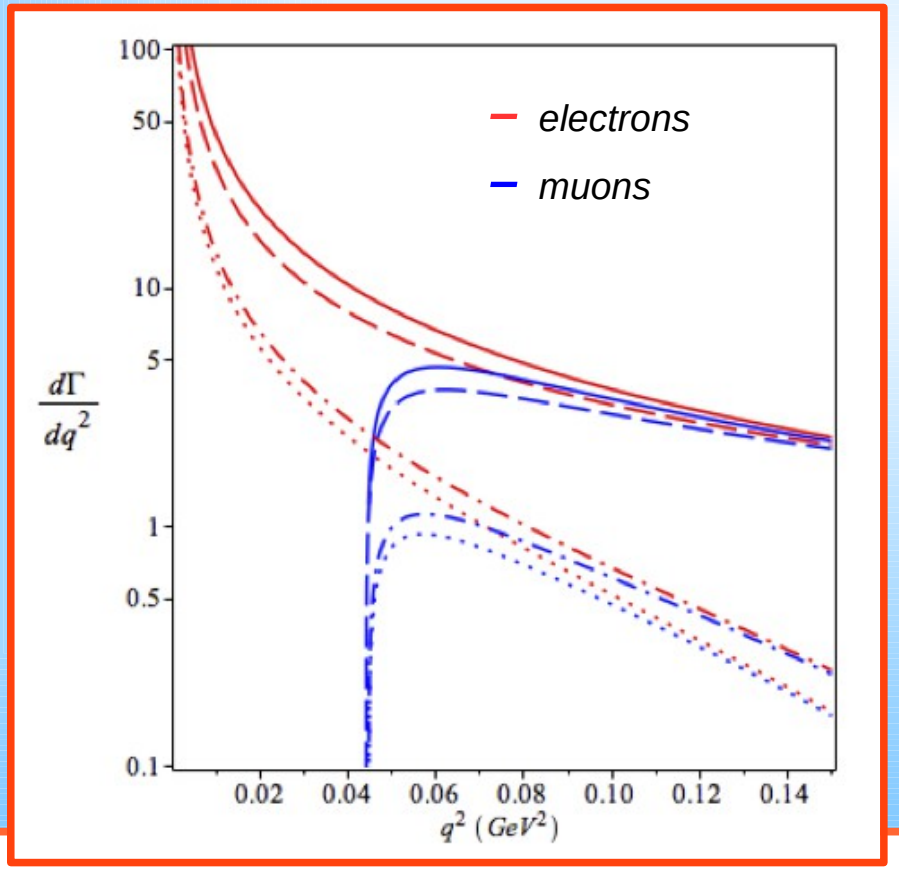
- *The measurement includes data as low as $q^2 = 0.045$ GeV^2 to help statistics*
- *This value is, however, (too) close to the di-muon threshold*



Bordone et al.'s "Note added"

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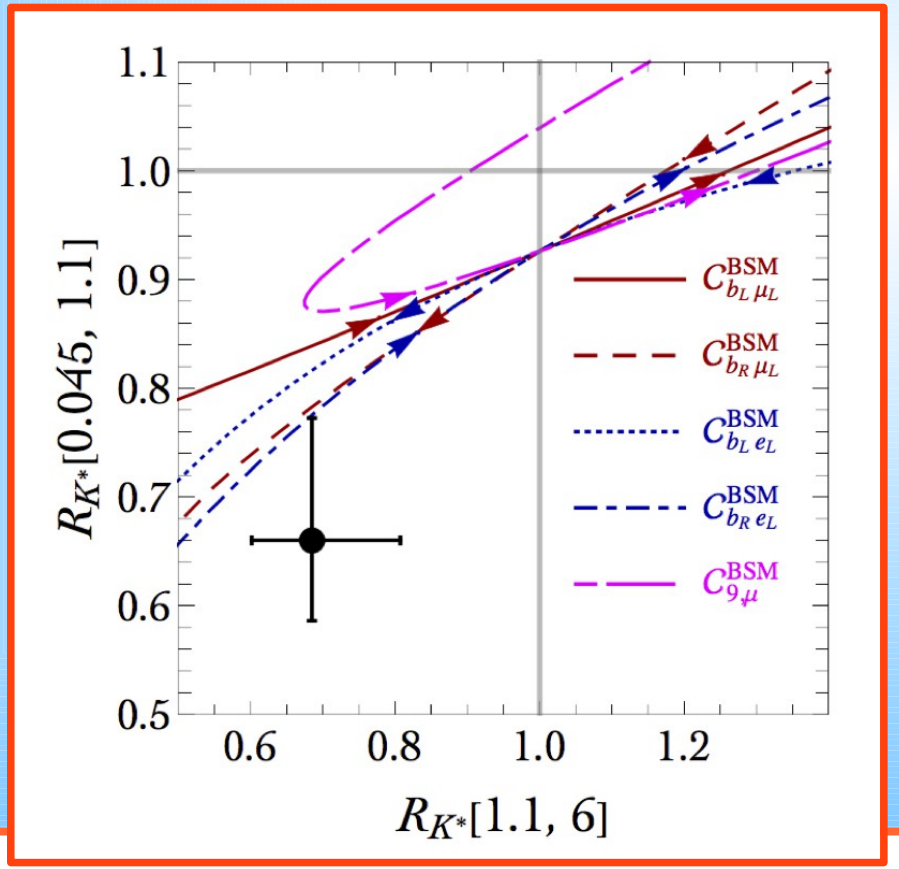
(b) *Some more discussion deserves RK* for $q^2 < 1$ GeV^2*

- *The measurement includes data as low as $q^2 = 0.045$ GeV^2 to help statistics*
- *Preferred NP solutions tend to predict RK*[0.045, 1.1] larger than exp, but (exp) error is still too large to draw conclusions*



D'Amico et al.

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- *Main issue:*
  How well do these BW forms describe the actual spectrum away from the resonances.

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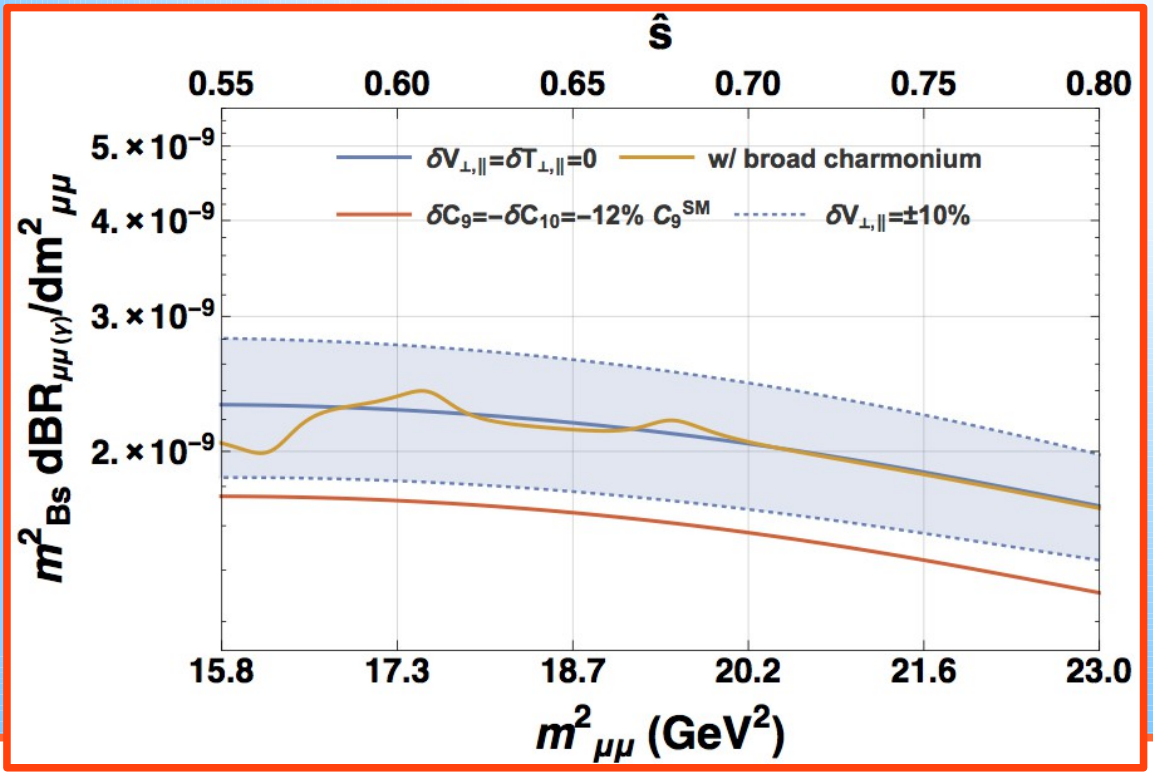

D. Guadagnoli, ZPW 2018, RT on TH errors

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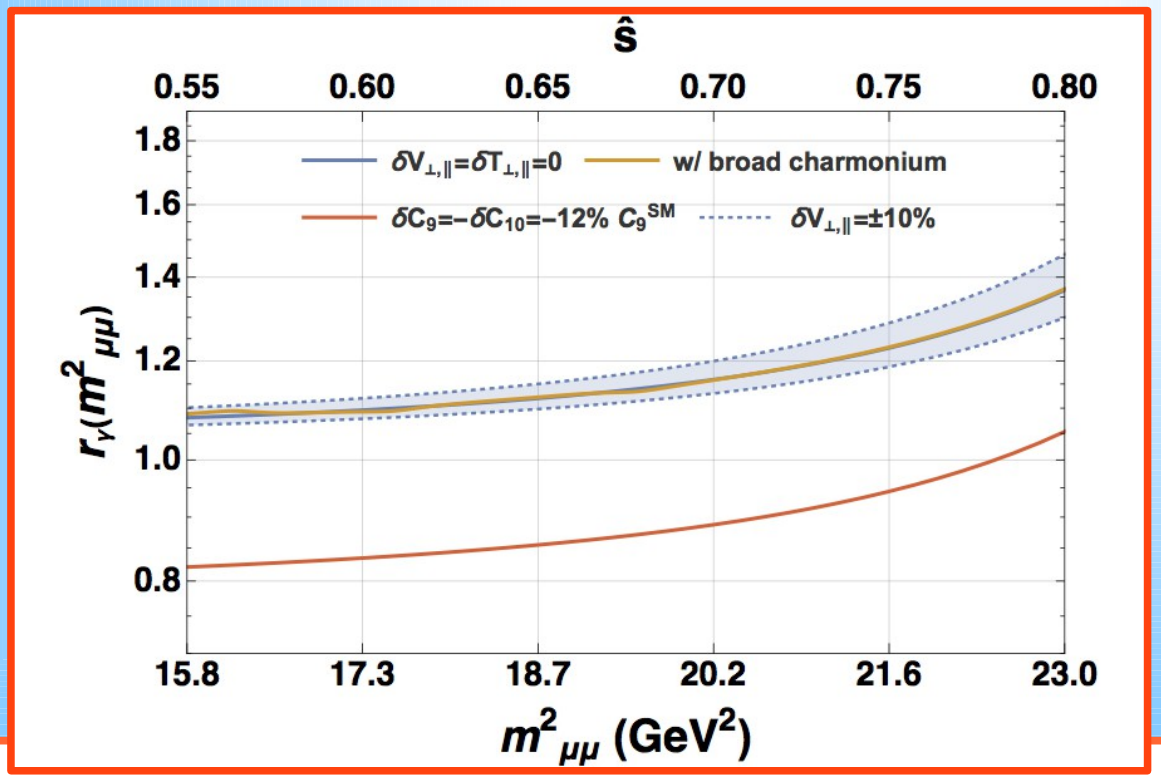

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(d) *On RD(*)*

- *RD: there are two LQCD computations for both f.f.'s and they agree*
- *RD*: Vcb issues have barely any impact on RD**

Anything else?

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- *Which would be a pity, because main NP features can be established <u>from ratios alone</u>*