

## Hadronic light-by-light contribution from Lattice QCD

- ▶ Direct calculation of  $a_{\mu}^{\text{HLbL}}$ :

- ▶ Results by RBC/UKQCD and Mainz available:

$$a_{\mu}^{\text{HLbL,RBC/UKQCD 19}} = 7.87(3.06)(1.77) \times 10^{-10}$$

$$a_{\mu}^{\text{HLbL,Mainz 21}} = 10.68(1.15)(0.92)_{a \rightarrow 0} (0.60)_{m_{\pi} \rightarrow m_{\pi}^{\text{phys}}} \times 10^{-10}$$

- ▶ Questions:

- ▶ Further plans by Mainz, RBC/UKQCD, other groups?
- ▶ Timeline?
- ▶ Average Mainz, RBC/UKQCD for WP incremental update?

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- ▶ Input for dispersive  $a_{\mu}^{\text{HLbL}}$ :

- ▶ Results for pseudoscalar transition form factors:

- $\pi^0$ : Gérardin et al., 2016, 2019; Burri et al. 2022

- $\eta, \eta'$ : in progress and preliminary results presented in this workshop

- ▶ Questions:

- ▶ Further plans by BMW, ETMC, Mainz, other groups?

- ▶ Timeline?