Introduction to the Dispersive HVP Session

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Introduction

Dominant uncertainty for the theoretical prediction of a_μ: from lowest-order HVP piece
Cannot be calculated from pQCD (low mass scale), but one can use experimental data
on $e^+e^- \to$ hadrons cross section (see also session from 15/04 for lattice approach)

$\to$ Precise $\sigma(e^+e^- \to$ hadrons) measurements at low energy are very important
   (main focus for the session today)
$\to$ Alternatively, one can use hadronic τ decays data + IB corrections
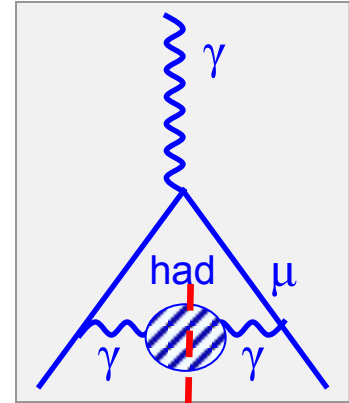
Main Focus of the Dispersive HVP Session Today

$\to$ Existing tensions among the experimental $e^+e^- \to \pi^+\pi^-$ measurements:
   KLOE / BaBar / BESIII / CMD3 ; CMD2 / CMD3 ; …

$\to$ Tensions in other hadronic channels (see e.g. new measurement from BELLE-II for 3π channel)

$\to$ Plans for ongoing / future measurements

$\to$ Status of Monte Carlo generators, comparisons with data, relevance for the various measurements

$\to$ Extra ISR/FSR photons in data & simulation: impact in the context of the measurements / observed tensions

$\to$ …

Agenda for Today

07:00 → 10:35   **Data HVP**

Conveners: Achim Gerold Denig (JGU Mainz), Bogdan Malaescu (LPNHE-Paris CNRS/IN2P3 (FR)), Dr Fedor Ignatov (University of Liverpool)

07:00   **Introduction**   🕐 5m

07:05   **Monte Carlo generator comparison studies**   🕐 15m
Speakers: Adrian Signer, Yannick Ulrich (Universitaet Bern (CH))

07:35   **Belle II report**   🕐 15m
Speaker: Hisaki Hayashii (Nara-WU)

08:05   **CMD2/3 report**   🕐 15m
Speaker: Ivan Logashenko (Novosibirsk)

08:35   **SND report**   🕐 15m
Speaker: Andrey Kupich (Novosibirsk)

09:05   **Short break** ¶   🕐 5m

09:10   **BaBar report**   🕐 15m
Speaker: Zhiqing Philippe Zhang (IJCLab, Orsay (FR))

09:40   **BESIII report**   🕐 15m
Speaker: Riccardo Aliberti (JGU Mainz (DE))

10:10   **General discussion**   🕐 20m