

# 2<sup>nd</sup> g-2 TI discussion meeting on 2023 CMD-3 $2\pi$ results

- Recall context for this unusual procedure
- Goal of g-2 Theory Initiative: discuss all issues regarding muon g-2 SM prediction and provide a consensus value for comparison to direct measurement (achieved in 2020)
- **CMD-3 2023  $2\pi$  result presents a big challenge to HVP contribution from dispersion relations because of its incompatibility with all previous experiments (scan and ISR low/high energies)**
- Previous disagreement between KLOE/BABAR was 'tolerable' and included as systematic uncertainty
- Difficult to treat CMD-3 result in the same way; also how to deal with CMD-2/CMD-3 discrepancy?
- The TI steering committee felt that an in-depth discussion with the author(s) was necessary to identify critical points of the CMD-3 analysis (or of previous ones) and to try to clarify the confusing situation
  
- Different format for this meeting: same panel, but participation not open to anyone, only experts from e+e- collaborations invited to better focus the discussion
- Otherwise follow-up of first meeting
  
- Thanks to Fedor for having responded to our long list of questions:
  - 12 for the meeting on March 27
  - 49 for this meeting

# meeting organization

- Presentation Fedor Ignatov (BINP/Liverpool)
- Discussion item by item of all 49 questions: panel + experts
- Cover all main topics:    separation  $ee/\mu\mu/\pi\pi$   
                                  efficiencies  
                                  radiative corrections  
                                  procedures  
                                  CMD-2 vs. CMD-3
- Try to summarize situation after each topic
  
- Panel: Michel Davier (IJClab-Orsay), Achim Denig (Mainz), Bogdan Malaescu (Paris),  
• Graziano Venanzoni (Liverpool), Andrey Kupich (BINP)
  
- CMD-2/CMD-3 : Alex Bondar, Guennadi Fedotovitch, Vanya Logashenko, Boris Shwartz, Genia Solodov
- SND : ?
- KLOE : ?
- BESIII : Christoph Redmer (Mainz), Riccardo Aliberti (Mainz), Guangshun Huang (USTC), Weiping Wang (Mainz)
- BelleII: Toru Iijima (Nagoya), Jim Libby (IITM-Chennai), Chris Hearty (UBC-Vancouver), Yuki Sue (Nagoya), Hisaki Hayashi (Nara)
- BABAR : Zhiqing Zhang (IJClab-Orsay), Denis Bernard (LLR-Palaiseau), Fabio Anulli (Roma)
  
- TI SC request: record meeting and give status report at Bern TI workshop September 4-8 2023