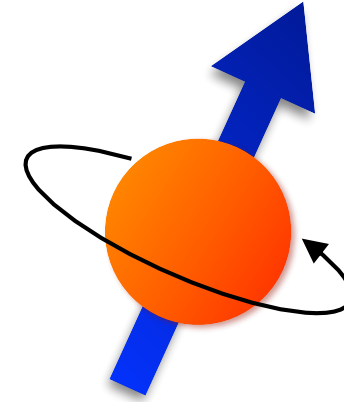


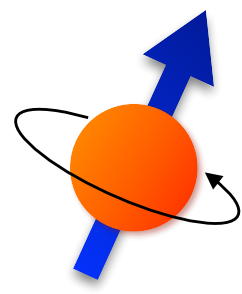
Planning for the next steps



Steering Committee

- | | |
|--|--------------------------------|
| ● Gilberto Colangelo (Bern) | ● Tsutomu Mibe (KEK) |
| ● Achim Denig (Mainz) | J-PARC Muon g-2/EDM experiment |
| ● Aida El-Khadra (UIUC) chair | ● Lee Roberts (Boston) |
| ● Martin Hoferichter (Bern) | Fermilab Muon g-2 experiment |
| ● Christoph Lehner (Regensburg) co-chair | ● Thomas Teubner (Liverpool) |
| ● Laurent Lellouch (Marseille) | ● Hartmut Wittig (Mainz) |

<https://muon-gm2-theory.illinois.edu>



Agenda

Aim for WP #3 in ~ 2-3 years

- 📌 WP 25
- 📌 focus topics and groups
- 📌 conflict resolution agreement
- 📌 open letter in support of J-PARC experiment

under development:

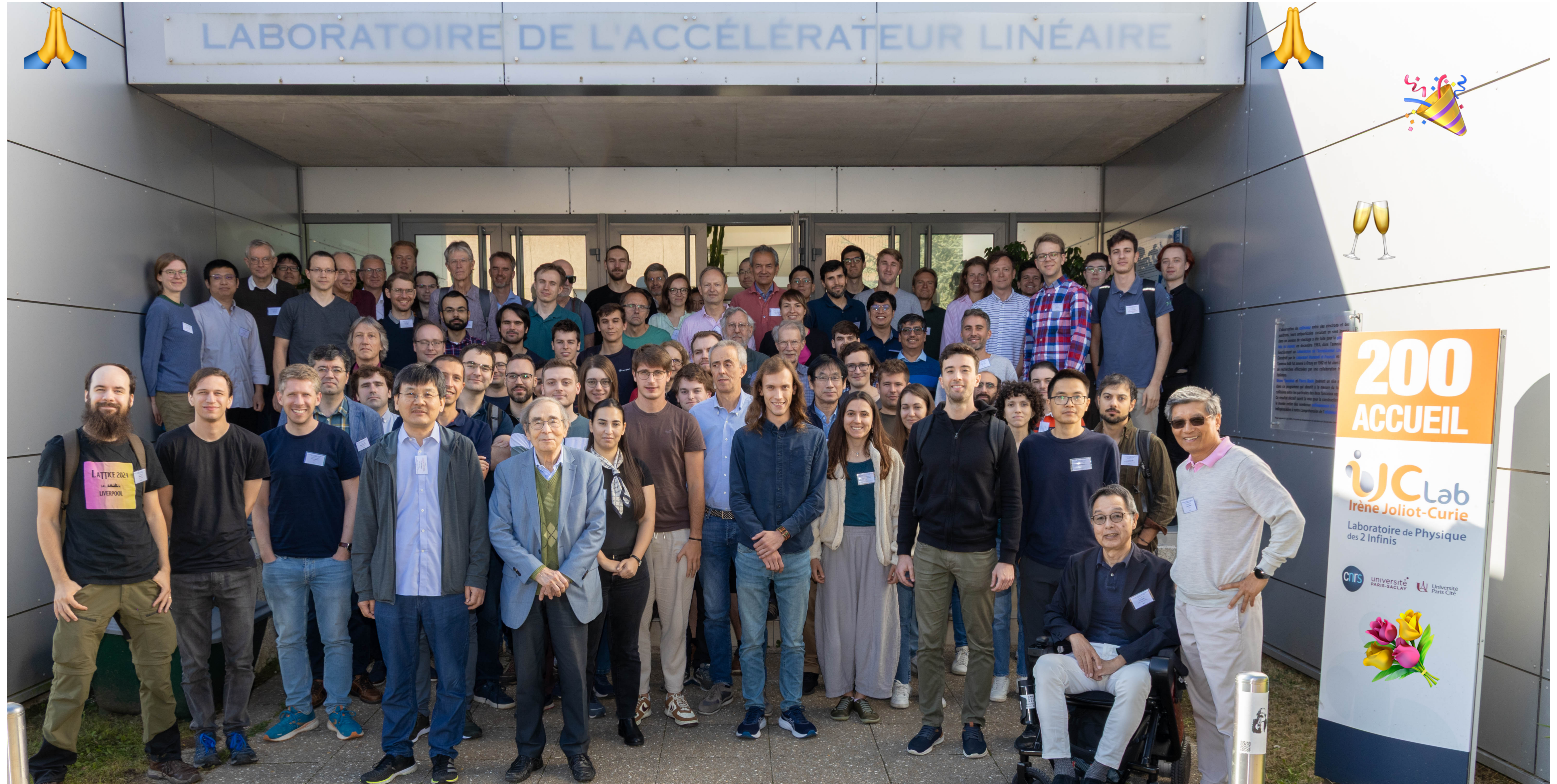
- 📌 9th plenary workshop:
considering US locations — could take place right after Lattice 2026 conference
- 📌 updates to TI webpage:
WP25 tab with summary table, downloadable summary plots
- 📌 updated TI mailing list
- 📌 code of conduct — in use already for all plenary workshops — to be posted on TI webpage



Thank You!




LOC: M. Davier, A. Gerardin, L. Lellouch, B. Malaescu, **Zhiqing Zhang**, E. Bonnardel, V. Brouillard




WP 25 is published! and updated on arXiv (v3)

Citation policy:

- 📌 Papers that use results from WP25 should cite the underlying inputs.
- 📌 The corresponding references are listed in Table 1 and <https://muon-gm2-theory.illinois.edu> will provide easy to copy bib files and citation commands.
- 📌 It is expected that all authors of WP25 follow this citation policy.

 **Physics Reports**
Volume 1143, 2 November 2025, Pages 1-158






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Review article


The anomalous magnetic moment of the muon in the Standard Model: an update


We dedicate this paper to the memory of Simon Eidelman.


R. Aliberti ^{1 2}, T. Aoyama ³, E. Balzani ^{4 5}, A. Bashir ^{6 7}, G. Benton ^{8 9}, J. Bijnens ¹⁰, V. Biloshytskyi ^{1 2}, T. Blum ^{11 12}, D. Boito ¹³, M. Bruno ^{14 15}, E. Budassi ^{16 17}, S. Burri ¹⁸, L. Cappiello ¹⁹, C.M. Carloni Calame ¹⁷, M. Cè ^{14 15}, V. Cirigliano ^{20 21}, D.A. Clarke ²², G. Colangelo ¹⁸  , L. Cotrozzi ²³, M. Cottini ¹⁸...A.S. Zhevlakov ²⁸


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Three months after WP25 was submitted:

Many new results, significant progress reported at Orsay workshop!



Physics Reports

Volume 1143, 2 November 2025, Pages 1-158






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Review article



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Focus topics and focus groups

Possible Focus Topics:

- 📌 virtual scientific seminars for new cross section measurements (share questions ahead of time) organized by leaders/representatives of experimental collaborations
- 📌 guidance and interpretation of systematic errors in experimental cross section measurements
- 📌 tau IB corrections: interplay between dispersive and lattice calculations
- 📌 Radio MonteCarLow: test and apply new MC generators/tools to experiments
- 📌 scale setting, gradient flow, separation schemes
- 📌 LD contribution: further comparisons using more scales
- 📌 sign of disconnected pion tff
- 📌 combine dispersive and lattice HLbL
- 📌 ?

focus groups

... should be largely self-organized.

Our thoughts and suggestions:

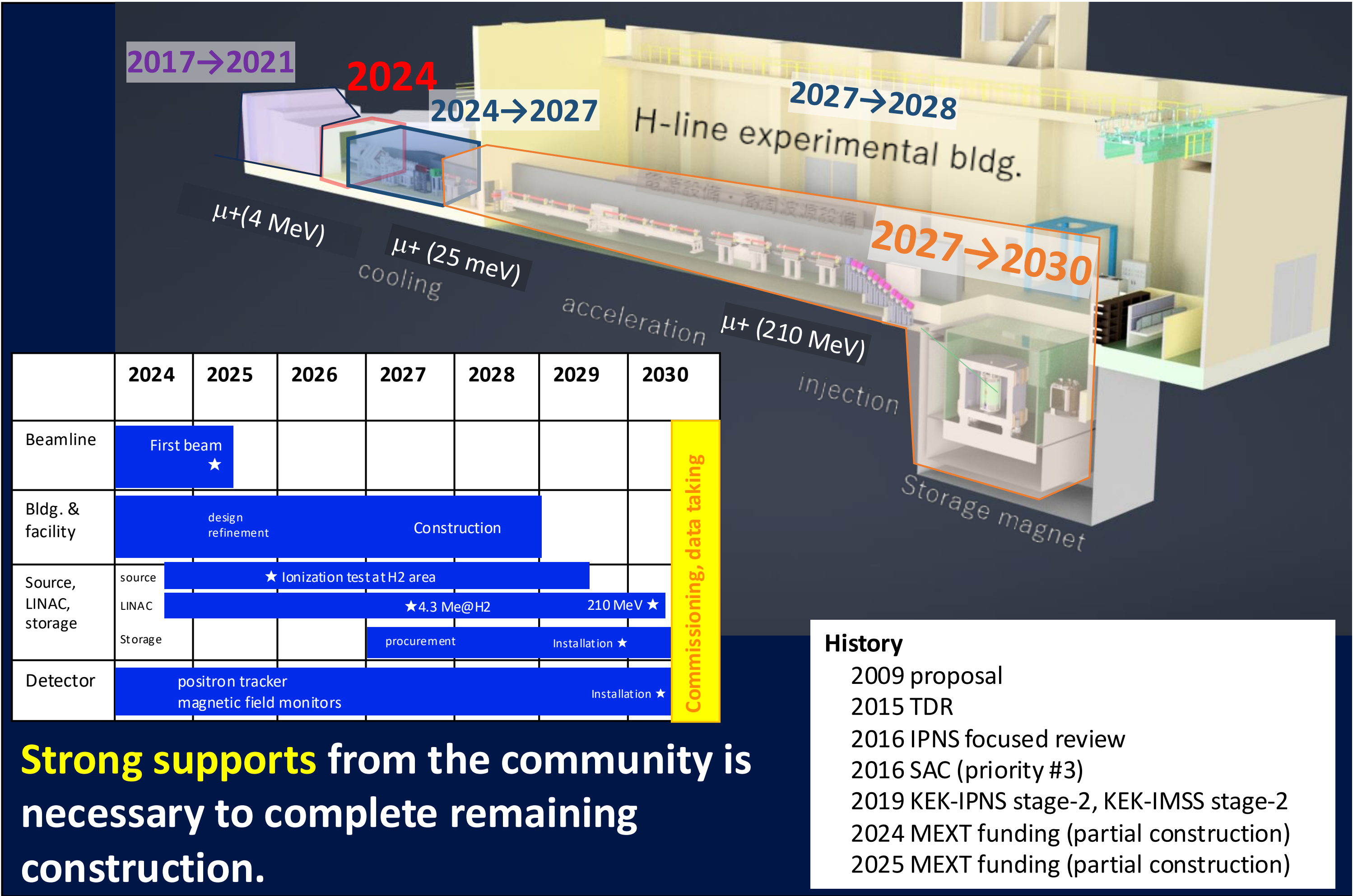
- 📌 SC can facilitate
[some focus groups may be very small, ~ 5 people]
suggest for every focus group to have an SC member as liaison
- 📌 activities might include zoom meetings or virtual mini workshops
could also envision dedicated in person workshops
- 📌 Focus groups should report on activities, progress in next plenary workshop

Thoughts, ideas?

Open Letter for J-PARC experiment

talk by T. Mibe on J-PARC g-2/EDM experiment:

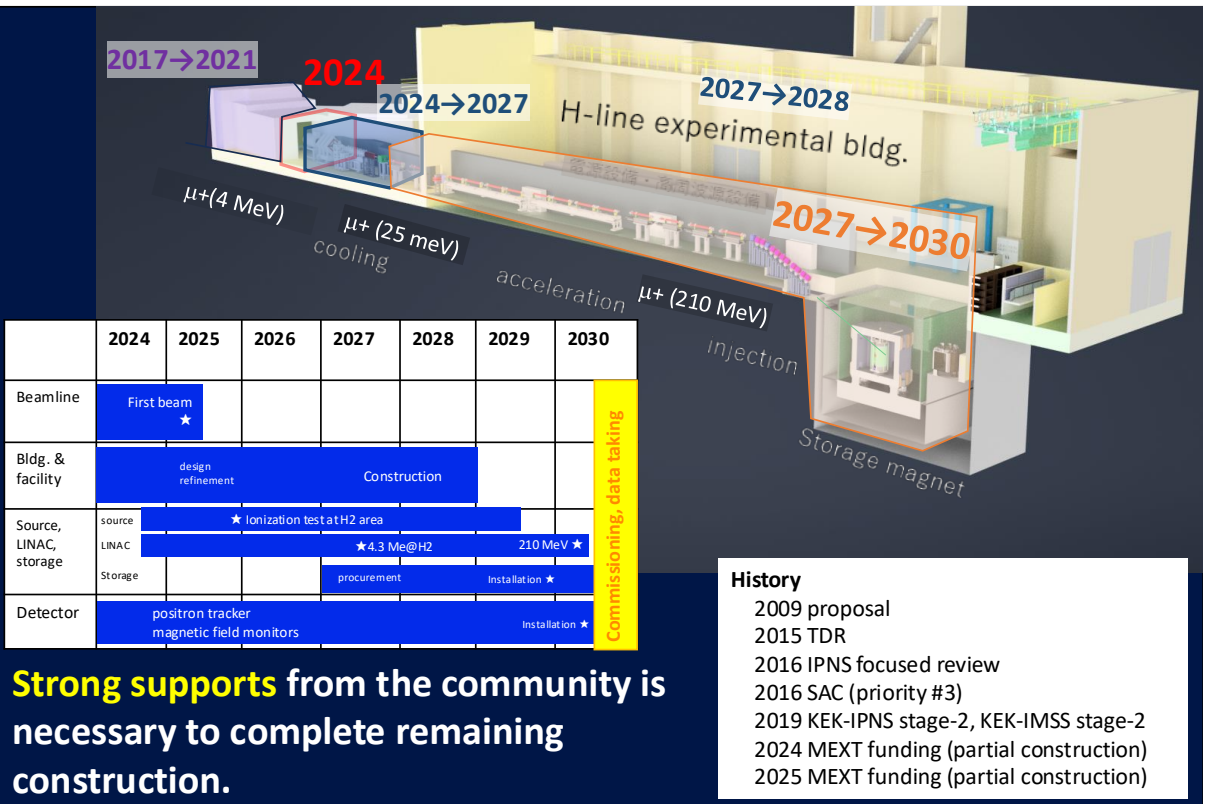
Muon g-2/EDM : intended schedule 23



Open Letter for J-PARC experiment

- 📌 current status of SM theory for muon g-2 is unsatisfactory
 - ➡ interpretation of exp measurement of a_μ as evidence or not of new physics still an open question
- 📌 Precision experiment and theory both benefit crucially from having two independent methods for measurements or calculations.
- 📌 SM theory landscape will be greatly clarified in a few years (before 2030).

Muon g-2/EDM : intended schedule 23



Proposal for a conflict resolution agreement

We propose to use the following procedure to resolve disagreements on scientific outputs of the Theory Initiative:

1. SC involvement starts with a party bringing a disagreement to a member of the SC.
2. SC members check with all involved parties to see if the disagreement can be resolved. If not, the SC will discuss.
3. If consensus is reached within the SC, that consensus is implemented and communicated.
4. If, in the worst case, the SC cannot reach consensus, then the SC will reach a decision with the aid of voting. The result will be communicated to the people involved in the conflict.

Notes:

- A. For scientific disagreements that are not resolved by consensus, the different scientific viewpoints will be reflected in the documents produced by the TI, as appropriate, followed by the final recommendation. This will be informed by practices used by the FLAG collaboration.
- B. The SC will share a record of all conflicts and their resolutions in a document that will be made accessible to all contributing members of the TI.
- C. All SC members must be given the opportunity to vote. A vote requires a majority of SC members to participate. If no majority can be found, the chair will decide.