

The 25th muon g-2/EDM collaboration meeting

📅 Dec 7, 2022, 8:50 AM → Dec 9, 2022, 7:00 PM Asia/Tokyo

📍 Library Hall (Ibaraki University)



📎 水戸キャンパス車...

Registration

📧 You are registered for this event.

Participants

👤 Abe Mitsushi 👤 Boris Shwartz 👤 Daisuke Nomura 👤 Hiromi IINUMA 👤 Hiromu Suzuki 👤 KATSUHIKO ISHIDA 👤 Kazuhito Suzuki 👤 Kazumichi SUMI 👤 Kemmei Kajino 👤 Ken-ichi S 👤 Kodai Oda 👤 Koichiro Shimomura 👤 Koki Yamura 👤 Mai Yotsuzuka 👤 Marina Nagai 👤 MyeongJae Lee 👤 Naohito SAITO 👤 Naritoshi Kawamura 👤 Reiya Okamura 👤 Ryosuke K 👤 Saeid Kamal 👤 Seonho Choi 👤 Shih-Yen Tseng 👤 Shinji OGAWA 👤 Shoichi Aritome 👤 Soh Sugiyama 👤 Sohtaro KANDA 👤 Taikan SUEHARA 👤 Takahisa Itahashi 👤 Takashi YAM 👤 takeshi fukuyama 👤 Tamaki YOSHIOKA 👤 Tatsuo Yoshida 👤 Tatsuya KUME 👤 Tomohiro

Contact 📧 g-2edm_meeting@ml.post.kek.jp

WEDNESDAY, 7 DECEMBER

8:50 AM → 9:00 AM **Welcome** ⌚ 10m

Speaker: Hiromi IINUMA (KEK IPNS)

9:00 AM → 9:15 AM **Opening: Opening and status of the lab**

Convener: Naohito SAITO (KEK IPNS and J-PARC)

9:00 AM **Welcome** ⌚ 10m

Speaker: Hiromi IINUMA (KEK IPNS)

9:15 AM → 12:20 PM **IMSS S-type Research Project Workshop**

Convener: Hiromi IINUMA (KEK IPNS)

9:15 AM **Overview** ⌚ 15m

Speaker: Tsutomu MIBE (KEK IPNS)

9:30 AM **Facility** ⌚ 20m

Speaker: Takayuki YAMAZAKI (KEK IMSS)

9:50 AM **Muon Source** ⌚ 20m

Speaker: Katsuhiko ISHIDA (Institute of Physical and Chemical Research)

- 10:10 AM **LINAC** ⌚ 20m
Speaker: Masashi OTANI (KEK (Acc.))
- 10:30 AM **Break** ⌚ 20m
- 10:50 AM **Injection and Kicker** ⌚ 20m
Speaker: Hiromi IINUMA (KEK IPNS)
- 11:10 AM **Storage Magnet** ⌚ 20m
Speaker: Ken-ichi SASAKI (KEK ARLCRYO)
- 11:30 AM **Detector** ⌚ 20m
Speaker: Tamaki YOSHIOKA (Kyushu University)
- 11:50 AM **Software and Computing** ⌚ 20m
Speaker: Takashi YAMANAKA (Kyushu University)
- 12:10 PM **Discussion or Comments from Reviewers** ⌚ 10m

12:20 PM → 1:45 PM **Lunch** ⌚ 1h 25m

1:45 PM → 2:15 PM **Opening**

1:45 PM **Status of the experiment** ⌚ 30m
Speaker: Tsutomu MIBE (KEK IPNS)

2:15 PM → 3:00 PM **Facility**

Conveners: Naritoshi KAWAMURA (KEK IMSS MSL) , Takayuki YAMAZAKI (KEK IMSS)

2:15 PM **Status of MUSE** ⌚ 20m
Speaker: Naritoshi KAWAMURA (KEK IMSS MSL)

2:35 PM **H-line** ⌚ 25m
Speaker: Takayuki YAMAZAKI (KEK IMSS)

3:00 PM → 3:20 PM **Break** ⌚ 20m

3:20 PM → 4:30 PM **Storage**

Convener: Ken-ichi SASAKI (KEK ARLCRYO)

3:20 PM **Overview** ⌚ 15m
Speaker: Ken-ichi SASAKI (KEK ARLCRYO)

3:35 PM

SC coil design and others ⌚ 25m**Speaker:** Mitsushi ABE (KEK IPNS)

4:00 PM

Study of magnetic field error and NMR probes ⌚ 30m**Speaker:** Shun Oyama (The University of Tokyo)

4:30 PM

→ 5:00 PM

Break ⌚ 30m

5:00 PM

→ 5:30 PM

Seminar**Convener:** Hiromi IINUMA (KEK IPNS)

5:00 PM

Introduction of J-PARC muon g-2/EDM experiment (for Ibaraki University) (**Speaker:** Tsutomu MIBE (KEK IPNS)

THURSDAY, 8 DECEMBER

8:45 AM

→ 11:40 AM

Detector**Conveners:** Shinji OGAWA (Kyushu University) , Yutaro SATO (Niigata Univ.)

8:45 AM

Overview ⌚ 10m**Speaker:** Tamaki YOSHIOKA (Kyushu University)

8:55 AM

ASIC QA ⌚ 15m**Speaker:** Takashi YAMANAKA (Kyushu University)

9:10 AM

Frontend Readout Board ⌚ 15m**Speaker:** Yutaro SATO (Niigata Univ.)

9:25 AM

Backend Board ⌚ 15m**Speaker:** Yuta OKAZAKI (KEK)

9:40 AM

Data transfer test between FRBS and ASIC board ⌚ 10m**Speaker:** Mr Reiya Okamura (Niigata Univ.)

9:50 AM

DC-DC convertor + Power system ⌚ 10m**Speaker:** Yuta OKAZAKI (KEK)

10:00 AM

DAQ(database system) ⌚ 15m**Speaker:** Yoshiaki SEINO (Niigata University)

10:15 AM

ULQ2 experiment ⌚ 15m**Speaker:** Dr Yuki Honda (Tohoku Univ.)

10:30 AM **Break** ⌚ 20m10:50 AM **Detector Assembly** ⌚ 22m
Speaker: Shinji OGAWA (Kyushu University)11:12 AM **Wire Bonding & Encapsulation** ⌚ 13m
Speaker: Mr Keisuke Umebayashi (Kyusyu Univ.)11:25 AM **Alignment Monitor** ⌚ 15m
Speaker: Dr Tatsuya KUME (KEK ARL)11:40 AM → 12:10 PM **Computing and Software****Convener:** Takashi YAMANAKA (Kyushu University)11:40 AM **Computing** ⌚ 15m
Speaker: Kiyoshi HAYASAKA (Niigata Univ.)11:55 AM **Analysis (sensitivity improvement by low-p track and emission angle)** ⌚
Speaker: Yutaro SATO (Niigata Univ.)12:10 PM → 1:20 PM **Lunch** ⌚ 1h 10m12:45 PM → 1:15 PM **EB meeting** ⌚ 30m1:20 PM → 2:00 PM **Computing and Software****Convener:** Takashi YAMANAKA (Kyushu University)1:20 PM **Analysis (muon lifetime measurement)** ⌚ 15m
Speaker: Shinji OGAWA (Kyushu University)1:35 PM **End-to-end simulation** ⌚ 15m
Speaker: Takashi YAMANAKA (Kyushu University)1:50 PM **Track finding** ⌚ 10m
Speaker: Deepak Samuel2:00 PM → 3:00 PM **MuSEUM****Convener:** Koichiro SHIMOMURA (KEK IMSS)2:00 PM **Present status of Mu HFS measurement 1** ⌚ 20m
Speaker: Hiroki TADA (Nagoya University)2:20 PM **Present status of Mu HFS measurement 2** ⌚ 20m
Speaker: Ryoto Iwai (KEK)

2:40 PM

Present status of muHe HFS measurement ⌚ 20m**Speaker:** Seiso FUKUMURA (Nagoya University)3:00 PM → 3:20 PM **Break** ⌚ 20m3:20 PM → 4:50 PM **Injection****Convener:** Hiromi IINUMA (KEK IPNS)

3:20 PM

Beam transport and kicker ⌚ 40m**Speaker:** Hiromi IINUMA (KEK IPNS)

4:00 PM

Status of beam storage at SITE ⌚ 30m**Speaker:** Ryota MATSUSHITA (The University of Tokyo)

4:30 PM

Beam monitor for original and SITE ⌚ 20m**Speaker:** Shinji OGAWA (Kyushu University)4:50 PM → 5:10 PM **Break** ⌚ 20m5:10 PM → 6:10 PM **Seminar: Topical Seminar****Convener:** Takashi YAMANAKA (Kyushu University)

5:10 PM

Probing New Physics in the Vector-like Lepton Model by Lepton Electric Dipol

We examine the lepton dipole moments in an extension of the Standard Model (SM), which contains second-generation SM leptons. The model naturally leads to sizable contributions to the muon g-2. One feature of this model is that a sizable electric dipole moment of the electron is also induced by vector-like leptons in the loops. We find parameter regions that can explain the muon g-2 and are consistent with constraints coming from the electron EDM and the Higgs decay, $h \rightarrow \mu^+\mu^-$. The generated EDM for the muon and $O(10^{-30}) e \cdot \text{cm}$ for the electron, respectively, which can be probed in future experim

Speaker: Shih-Yen Tseng (The University of Tokyo)

FRIDAY, 9 DECEMBER

9:00 AM → 11:30 AM **Muon source: Muon Source + Mu 1S-2S****Convener:** Katsuhiko ISHIDA (Institute of Physical and Chemical Research)

9:00 AM

Overview ⌚ 5m**Speaker:** Katsuhiko ISHIDA (Institute of Physical and Chemical Research)

9:05 AM

MU ionization in U-line ⌚ 15m**Speaker:** Sohtaro KANDA (KEK IMSS)

9:20 AM

Muonium ionization experiment in S2 and plan for double-layer target ⌚ 20m**Speaker:** Kazuhito SUZUKI (KEK IPNS)

9:40 AM **Aerogel target production** ⌚ 15m

Speaker: Kamal S

9:55 AM **New muon source chamber for H2** ⌚ 15m

Speaker: Katsuhiko ISHIDA (Institute of Physical and Chemical Research)

10:10 AM **Break** ⌚ 20m

10:30 AM **Lyman-alpha laser and plan for laser facility in H2** ⌚ 20m

Speaker: Yu OISHI (KEK IMSS)

10:50 AM **244nm laser development and future plan** ⌚ 20m

Speaker: Shusei KAMIOKA (KEK IPNS)

11:10 AM **1S2S spectroscopy and 244 nm laser** ⌚ 20m

Speaker: Shinsuke Yamamoto (Okayama Univ.)

11:30 AM → 1:00 PM **Lunch** ⌚ 1h 30m


12:30 PM → 1:00 PM **CB meeting** ⌚ 30m

1:00 PM → 3:40 PM **LINAC**

Conveners: Masashi OTANI (KEK (Acc.)), Yasuhiro KONDO (ACCL)

1:00 PM **Introduction** ⌚ 5m

Speakers: Masashi OTANI (KEK (Acc.)), Yasuhiro KONDO (ACCL)

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1:05 PM **IH** ⌚ 15m

Speaker: Mr Yuga NAKAZAWA (Ibaraki University)

1:20 PM **DAW** ⌚ 20m

Speaker: Yusuke TAKEUCHI (Kyushu University)

1:40 PM **DLS** ⌚ 20m

Speaker: Kazumichi SUMI (Nagoya University)

2:00 PM **e2e simulation** ⌚ 10m

Speaker: Yusuke TAKEUCHI (Kyushu University)

2:10 PM **Break** ⌚ 15m

2:25 PM

RF ⌚ 8m**Speaker:** Futatsukawa/Ersin

2:33 PM

modulator PS ⌚ 12m**Speaker:** Takayanagi/Fuwa

2:45 PM

S2 acceleration test ⌚ 20m**Speaker:** Mai YOTSUZUKA (Nagoya University)

3:05 PM

H2 acceleration test ⌚ 15m**Speaker:** Yuka IBARAKI (Nagoya University)

3:20 PM

Stripline BPM ⌚ 10m

slide will be explained by Otani on behalf of Chang-Kyu Sung

Speaker: Chang-Kyu Sung

comments and que...

3:30 PM

→ 3:45 PM

Break ⌚ 15m

3:45 PM

→ 4:30 PM

Closing

3:45 PM

CB report ⌚ 10m**Speaker:** Seonho Choi (Seoul National University)

3:55 PM

Speakers committee report ⌚ 10m**Speaker:** Katsuhiko ISHIDA (Institute of Physical and Chemical Research)

4:05 PM

Publication committee report ⌚ 10m

4:15 PM

Summary ⌚ 15m**Speaker:** Tsutomu MIBE (KEK IPNS)