

Kickoff of International Task Force Meeting for SuperKEKB

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International Task Force (ITF) for SuperKEKB

From Y. Suetsugu's slides



Task force



- **Charges**
 - Consider effective ideas to realize luminosity of $\sim 6 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$ as a result of an intermediate upgrade around 2026, which could include modifications of IR, final focus systems, injectors, but without changing the boundary to the Belle II detectors.
 - Find a realistic way before long shutdown 1 (LS1) scheduled to start Jul/2022 in order to achieve luminosity of the order of $10^{35} \text{ cm}^{-2} \text{ s}^{-1}$ without large modification of accelerator components.
 - Consider longer-term alternative idea to achieve $\sim 6 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$ or more, even by largely modifying the IR and the Belle II detector.

• Activity period

- Coming one year, before the LS1.

• Rough schedule

- (Online) meeting per month basically.
- Meetings are basically open, but may occasionally have closed sessions.
- Special review by ARC per ~6 months.
- Final report is to be submitted by the end of July, 2022.

	2021						2022						
	7	8	9	10	11	12	1	2	3	4	5	6	7
Meeting	○ Kick off	○		○	○	○		○	○		○	○	
Review by Arc			○				○			△ As needed			○ Report
Machine operation				←→				←→					

One of the important milestones

International Task Force (ITF) for SuperKEKB

To solve challenging problems we face with SuperKEKB.

- We are entering important, crucial stages.
 - We need expertise from you,
 - We would like us to work together for SuperKEKB and future machine.

ITF kickoff meeting was held
on July 28, 2021.

2nd one today
Sep.2, 2021

1. Three working groups (sub-groups) organized and their indico sites created.

- ① Optics (Contact person: **Akio Morita** & Sub: Haruyo Koiso)
- ② Beam-beam (Contact person: **Demin Zhou** & Sub: Kazuhito Ohmi)
- ③ TMCI (Contact person: **Mauro Migliorati** & Sub: Takuya Ishibashi), just ~10 days ago!

SuperKEKB International Task Force Subgroup

<https://kds.kek.jp/category/2242/>

beam-beam	1 event	⇒
optics	empty	⇒
TMCI	1 event	⇒

International Task Force (ITF) for SuperKEKB

SuperKEKB International Task Force Subgroup <https://kds.kek.jp/category/2242/>

beam-beam	1 event	⇒
optics	empty	⇒
TMCI	1 event	⇒

beam-beam

August 2021

24 Aug 1st meeting of beam-beam workgroup

1st meeting of beam-beam workgroup

Tuesday 24 Aug 2021, 15:00 → 18:00 Asia/Tokyo

Description The beam-beam workgroup (itf-bb) is organized under the framework of the international task force for SuperKEKB upgrade. This is the first meeting of itf-bb workgroup.

Zoom connection info:
<https://us02web.zoom.us/j/81513497637?pwd=dEpwMW94V1hVYnA2S0lVVExyNFFPQT09>
Meeting ID: 815 1349 7637
Passcode: 3300

Mimute_20210824....

15:00 → 15:40	Overview of beam-beam effects at SuperKEKB Speaker: Kazuhito OHMI (KEK ACCL) BBSKB2021ab.pdf	🕒 40m
15:40 → 16:10	Beam-beam simulations for SuperKEKB Speaker: Demin ZHOU (KEK ACCL) 20210824_BB_Sim...	🕒 30m
16:10 → 16:30	Discussion 20210824_Discuss... HBCC.pdf	🕒 20m Minutes

International Task Force (ITF) for SuperKEKB

2. Email list for each group has been prepared. There seems to be things to be improved..
Q) Who are on each list?

SuperKEKB International Task Force Subgroup <https://kds.kek.jp/category/2242/> [Create event](#) [Parent cate](#)

beam-beam	1 event	⇒
optics	empty	⇒
TMCI	1 event	⇒

Managers
Haruyo KOISO
Kazuhiro OHMI
Takuya ISHIBASHI

Materials
Mail-list Info.

SKB-ITF Mail Lists and Indico

International Task Force groups for SuperKEKB

We have three sub-groups;

- [Beam-beam subgroup](#): contact persons - D. Zhou and K. Ohmi
- [Optics subgroup](#): contact persons - A. Morita and H. Koiso
- [TMCI subgroups](#): contact persons - M. Migliorati and T. Ishibashi,

Following are links to members of related mailing-lists;

- [skb-itf-bb](#) AT ml.post.kek.jp: for Beam-beam
- [skb-itf-opt](#) AT ml.post.kek.jp: for Optics
- [skb-itf-tmci](#) AT ml.post.kek.jp: for TMCI
- [skb-itf](#) AT ml.post.kek.jp: for general
- [Sum of all these mail lists](#)

The lists above are updated hourly. The last update was at Sep 2 19:00, 2021 JST.

Indico categories of those sub-groups;

- [Parent category](#)
- [Beam-beam](#)
- [Optics](#)
- [TMCI](#)

Names only for security reasons

Christoph Montag
Demin Zhou
Dmitry Shatilov
Felix Carlier
Hiroyuki Nakayama
Katsunobu Oide
Katsunobu Oide
Kazuhiro Ohmi
Kazuro Furukawa
Makoto Tobiyama
Mika Maszawa
Mikhail Zobov
Norihiro Ohuchi
Peter Kicsiny
Rogelio Tomas
Tadashi Koseki
Tatiana Pieloni
Tom Browder
Xavier Buffat
Yoshihiro Funakoshi
Yusuke Suetsugu

You can see the lists from outside of KEK
The lists are updated ~every one hour
(K. Furukawa)

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3. Lattice files (sad and bmad/mad8/madx) are uploaded <https://kds.kek.jp/event/39013/>

Files for International Task Force Meeting for SuperKEKB upgrade

 Wednesday 4 Aug 2021, 08:00 → 18:00 Asia/Tokyo

 Makoto TOBIYAMA (KEK ACCL4) , Yusuke SUETSUGU (KEK ACCL) , Kazuro FURUKAWA (KEK ACCL)

08:00 → 08:20

1. SAD lattice file

 20m  Minutes

 her.sad  ler.sad

08:20 → 08:40

2. SAD output (Twiss parameters, beamline geometry, closed orbit)

 20m  Minutes

 her_cod.dat  her.disp  her.dispg  ler_cod.dat  ler.disp  ler.dispg

08:40 → 09:00

3 BMAD file

 20m  Minutes

 her.bmad  her.mad8  her.madx  ler.bmad  ler.mad8  ler.madx

Each sub-group will report on the current status in the next session.