

# Snowmass 2021

Details about Snowmass 2021 can be found on the official page: <https://snowmass21.org/>

The European Strategy Group (ESG) process has nearly completed. The next major decadal strategy effort is the US Snowmass process, which will be followed by P5 panel recommendations, which in turn will guide funding and resource decisions.

The first milestone for the US Snowmass process was the submission of short 2-page LOI's on Aug 31st, 2020. Longer "White-Paper" documents are now due by January 2022. These White-Papers may update or go beyond the content of the Belle II Physics Book <https://arxiv.org/abs/1808.10567> and/or may also discuss technical aspects of SuperKEKB accelerator and Belle II detector upgrades.

Detailed scientific discussions will take place during the next year and a half. A large close-out meeting is planned in Seattle, WA but deferred to the summer of 2022 due to the pandemic. Participation of all international Belle II colleagues and *especially* junior colleagues is strongly encouraged in this high energy physics community process. Contributions from theoretical colleagues are also welcomed. Belle II colleagues are encouraged to join the Snowmass topical groups.

N.B. Some of the original deadlines have been revised due to the pandemic (White Papers Jan 2022, Closeout Summer 2022)

## Talks at meetings/workshops

- May 20, 2020 - EF06 Kick-off meeting: [Summary of proposed Belle II activities: Charmonium, Bottomonium, and XYZ states](#), Bryan Fulsom
- Jun 24, 2020 - EF06 Topical Group Meeting: [Belle II Overview \(Hadron Spectroscopy\)](#), Bryan Fulsom
- Jul 10, 2020 - Preparatory Joint Sessions on Open Questions and New Ideas - [Hadron Spectroscopy \(includes Belle II\)](#), Bryan Fulsom
- Jul 23, 2020 – RF5 Workshop [CLFV - Tau Decays and Transitions](#)
  - [Tau LFV decays at Belle II](#), Swagato Banerjee
- Sep 23, 2020 - RF07 Workshop: [Bottomonium \(Experimental, includes Belle II\)](#), Todd Pedlar
- Sep 28-29, 2020 – RF1/5 Workshop [Lepton flavor violation and lepton universality violation in meson and baryon decays](#)
  - [LFV+LFU in neutral-current b/c decays at Belle II](#), Karim Trabelsi
  - [LFU in charged-current b decays at Belle II](#), Florian Bernlochner
- Oct 2, 2020 – RF Town Hall meeting
  - [Physics prospects of Belle II](#), Soeren Prell
  - [CKM measurements and CPV in b decays at Belle II](#), Alessandro Gaz
  - [Rare b decays at Belle II](#), Alan Schwartz
  - [Charm physics at Belle II](#), Jake Bennett
  - [Hadron Spectroscopy at Belle II](#), Bryan Fulsom
  - [Long-lived particles at Belle II](#), Susanne Westhoff
  - [Dark sector studies at Belle II](#), Kevin Flood
  - [CLFV in tau decays](#), Swagato Banerjee
- Oct 6, 2020 – AF5 organization with contributors
  - [Upgrades of SuperKEKB/Belle II](#), Tom Browder
  - [Precision Electroweak Physics with Polarized Beams at SuperKEKB/Belle II](#), Michael Roney

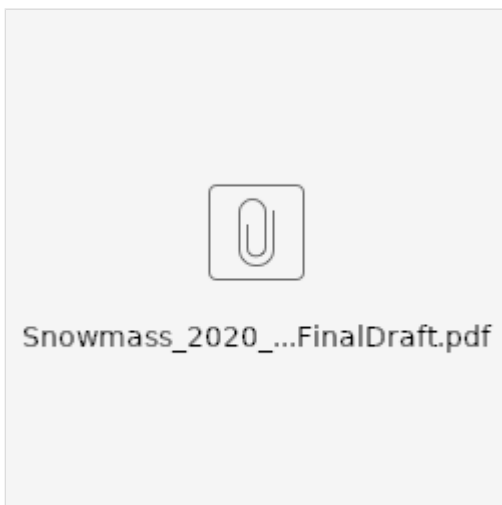
## Letters of interest

The following LOIs have been prepared and submitted for Belle II:

### 1. Belle II/SuperKEKB upgrades and overview

Coordinator: Tom Browder ([teb@phys.hawaii.edu](mailto:teb@phys.hawaii.edu))

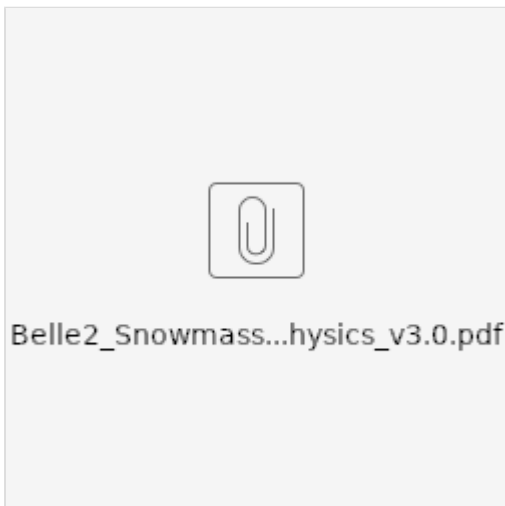
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### 2. B physics at Belle II

Coordinator: Soeren Prell ([prell@iastate.edu](mailto:prell@iastate.edu))

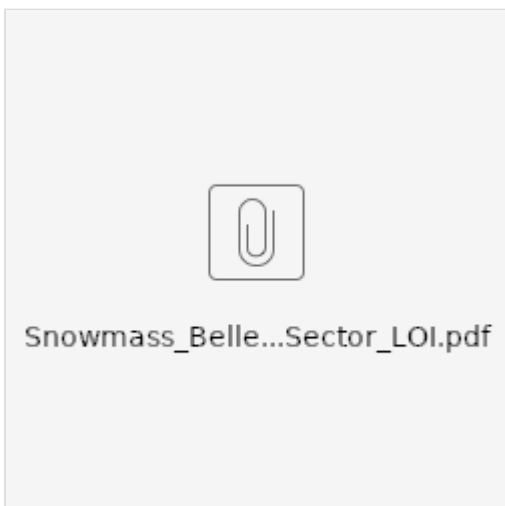
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### 3. Dark Sector Studies at Belle II

Coordinators: Chris Hearty ([hearty@physics.ubc.ca](mailto:hearty@physics.ubc.ca)), Kevin Flood ([kflood@hawaii.edu](mailto:kflood@hawaii.edu))

Final version:



### 4. Charm Physics at Belle II

Coordinator: Alan Schwartz ([alan.j.schwartz@uc.edu](mailto:alan.j.schwartz@uc.edu))

Final version:



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## 5. Tau Physics and Precision Electroweak Physics with Polarized beams at SuperKEKB/Belle II

Coordinator: Swagato Banerjee (swagato.banerjee@louisville.edu)

Final version:



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## 6. Hadron Spectroscopy at Belle II

Coordinator: Bryan Fulsom (bryan.fulsom@pnnl.gov)

Final version:



Snowmass\_Hadron...BelleII\_LOI.pdf

## 7. Belle II/SuperKEKB capabilities for QCD

Coordinator: Anselm Vossen ([anselm.vossen@duke.edu](mailto:anselm.vossen@duke.edu))

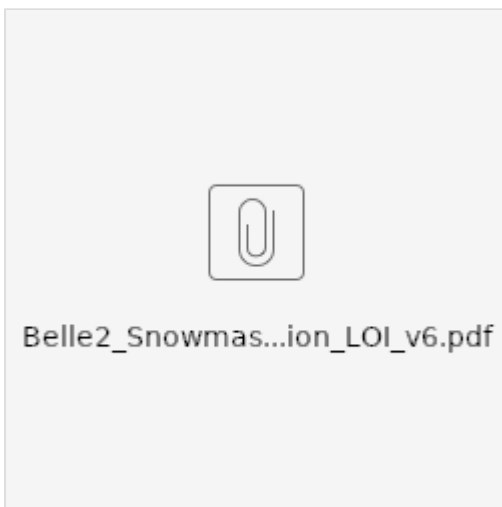
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## 8. Belle II detector upgrades (plans for the instrumentation frontier)

Coordinator: Sven Vahsen ( [Sven Einar Vahsen](#) )

Final version:



## 9. Belle II plans for the computing frontier

Coordinator: Jake Bennett ([jvbennet@olemiss.edu](mailto:jvbennet@olemiss.edu))

Final version:



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