

# FCC whitepaper for Snowmass

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# Snowmass whitepapers

Snowmass process gathers information via white papers and then produces a report which goes to the P5 committee. The P5 committee sets the long-range priorities for US fundamental physics funding. The US congress very much likes this process and once the priorities are set, it is virtually impossible to fund anything not on them or to change ordering of the priorities. Snowmass thus sets US funding for many years, and what US physicists are allowed to work on.

- Snowmass began in early 2020
- Was paused in January 2021 due to COVID
- Resumed Sept 2021
- White papers due March 2021
- Workshop in Seattle Washington 17-27 July. Much of report produced there.

It is important that FCC have an official whitepaper submission so it can be officially considered and to use to help the snowmass group subconveners properly understand the potential impact of FCC.

**Thank you to everybody for agreeing to help on this. We are off to a late start, as the deadline for submission is March. Nevertheless, I know we can produce a useful document to ensure that FCC is officially considered and will provide a useful reference for the Snowmass group leaders and as the Snowmass report is produced.**

# whitepaper

We plan a paper of about 50 pages (about 5 pages per chapter). These will contain references to existing papers/arXiv submissions and brief summaries of the FCC predicted impact. The paper will be coordinated by Sarah Eno (U. Maryland) and Dmitri Denisov (BNL)

Section	Primary authors	Secondary input	Corresponding snowmass subgroups
Introduction	Eno, Denisov	Janot, Blondel	
Accelerator	Raubenheimer	Zimmerman	
Higgs	Brost, Paus	Klute, Grojean, Bernardi, Janot	EF01, EF02
Precision EWK	Hildreth, Zhu, Freitas	Blondel, Gluza, Alcaraz, de Blas	EF04
Top	Demina, Skinnari	Simon, Azzi	EF03
BSM	Willocq, Thomson	Suarez, Heinemeyer	EF08, EF09, EF10
QCD		D'Enterria	EF05
Flavor		Mogens	RF1, RF4, RF5
FCC-hh	Harris, Barberis, Wang	Mangano, Selvaggi	all
Detectors	Seidel, Qian	Bedeschi, Giacomelli, Aleksa, Perez	
Summary	Eno, Denisov	Janot, Blondel	

The secondary authors should suggest papers for the primary authors to use as resources. The primary authors will produce the first draft. The secondary authors will look over it and advise. We will iterate until happy.

The primary authors should decide among themselves how to divide up the work.

The primary authors are also urged to contact the subgroup conveners relevant to their groups and at some point discuss with them what would be useful to them.

The overleaf frame is at:  
<https://www.overleaf.com/read/yfhwhjmrCRMw>

# For discussion

- Is the proposed content clear to the primary authors?
- Are the current chapters the best choices?
- Is the proposed length correct?
- Does everybody know where to find the list of existing papers to reference and summarize?
- Do the US authors know they need to produce a first draft? Can they do this by mid January?
- Would more US authors be helpful? If so, who?
- Shall we have a follow up meeting the week of 17 January, to track progress?

Feel free to contact me at any time if you have questions/concerns.