

News

Computational Frontier Convener Meeting @ Snowmass2021

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June 26, 2020

European Strategy

Useful to have a look!

<https://home.cern/sites/home.web.cern.ch/files/2020-06/2020%20Update%20European%20Strategy.pdf>

Notable:

“Both exploratory research and theoretical research with direct impact on experiments should be supported, including recognition for the activity of providing and developing computational tools.”

“Large-scale data-intensive software and computing infrastructures are an essential ingredient to particle physics research programmes. The community faces major challenges in this area, notably with a view to the HL-LHC. As a result, the software and computing models used in particle physics research must evolve to meet the future needs of the field. **The community must vigorously pursue common, coordinated R&D efforts in collaboration with other fields of science and industry, to develop software and computing infrastructures that exploit recent advances in information technology and data science. Further development of internal policies on open data and data preservation should be encouraged, and an adequate level of resources invested in their implementation.**”

“The energy efficiency of present and future accelerators, and of computing facilities, is and should remain an area requiring constant attention.”

“Additional measures should be taken in large collaborations to increase the recognition of individuals developing and maintaining experiments, computing and software. “

- Frontier Workshop

- Proposed agenda: https://docs.google.com/document/d/1sSWXyzMzUJATl8_6yeLGqm1IAyJdzO9m495e9Y44Kug/edit
- We should announce soon (more on this in the email announcement)
- Any feedback on the agenda? If not, we will put it on indico.
- Please start thinking about how you will use your parallel sessions!

- Community email

- Steve prepared an email: <https://docs.google.com/document/d/1Do9VnzerYkEXhIvTO7p1CkTLEURpeg8-DEWV4aPpITQ/edit>
- Any feedback? We can add the workshop and circulate it to major computing lists. Suggestions? Please add your favorite list to the live notes.

- Feedback from Rick Van Kooten (P5 from last Snowmass)

- We had a brief chat with Rick who shared some wisdom (summarized):
- Aim for maximal impact of our report; last P5 had $\frac{1}{3}$ of a page for computing (!) (e.g. accelerators had much more)
- Need to stress mission criticality
- Aggregation of needs across frontiers is important
- Make clear that we need more than just scaling up - we need to transform computing (N.B. no ML or QC in last P5 report)
- Be bold about the importance of computing (and also put next 10-15 years into context of next 20-25 years)
- Identify key opportunities and connect to identify funding possibilities (computing testbed(s) like for accelerators?). Could lead to follow up committees and further support, etc.
- Lobby for computationally-minded person for P5 panel (O(20) people on the panel!)

Workflow discussion

- <https://docs.google.com/spreadsheets/d/1VgZw95-YiY8cdPt6lC38YkunAvDAHMdfrtvwAph1o3Q/edit#gid=0>

Roundtable

Reverse order!

- CompF7 (Reinterpretation and long-term preservation of data and code)
- CompF6 (Quantum computing)
- CompF5 (End User analysis)
- CompF4 (Storage and processing resource access)
- CompF3 (Machine Learning)
- CompF2 (Theoretical Calculations and Simulation)
- CompF1 (Experimental Algorithm Parallelization)