Report of the Scientific Program Committee

David Richards

USQCD All-Hands Meeting,
MIT
4/30 - 5/1, 2021

Thank you to Andreas, Phiala, Tanmoy and Will

Scientific Program Committee

- Alexei Bazavov (Michigan State)

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- Meifeng Lin (BNL)

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- Keh-Fei Liu (Kentucky) ⟶ Sergey Syritsyn (SUNY)

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- Ethan Neil (Colorado)

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- David Richards (Chair, JLab)

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We thank Keh-Fei for his very insightful reading!

USQCD Resources for 2021-2022

- 79.04M Skylake core-hours (17.64M BNL, 61.4M FNAL)
  - Last year: 78.68M
- 218.88M KNL core-hours (16.13M BNL, 202.75M JLab)
  - Last year: 219.24M
- 1.13M K80 gpu-hours (BNL)
  - Last year: 1.15M
- 1.84M RTX2080 gpu-hours (JLab)
  - Last year: 1.84M
- *Look out for supplemental call on "21g"!*

See CfP for how to get exploratory account

600 TBbyte disk + 600 TByte at BNL
600 TByte disk + 1000 TByte tape at FNAL
1000 TByte disk + 1000 TByte tap at JLab

} *As last year, allocations recommended by SPC*

2021-2022 USQCD CfP

- Timeline follows last year:
  - *Allocations announced 31st May*
- Significant changes:
  - Continued with google forms interface ➙ *google sheets*.
  - Maintained “shortened” option for continuation proposals.
  - CfP gave further details of our review procedures - *by popular demand*
  - New this year! Data Management Plan
    - Aimed a long-term storage - *so not directly considered by SPC yet.*
    - But explicitly asked about data-sharing, exclusivity etc. - *so that we did pay attention to.*

Proposals for 2021-2022

- 30 Class-A Proposals. *Most are "measurement" jobs, but two gauge-generation: Flavor physics and BSM.*
  - 30 in 2020-2021, 31 in 2019-2020
- 5 Class-B Proposal in 2020-2021! *Suggested* maximum 500K Skylake core-hours/25K K80-RTX gpu-hours. 6 month duration. Can be submitted any time throughout the year.
  - *1* in 2019-2020, 3 in 2018-2019
- Class C. *20K Skylake core-hours/2K K80 gpu-hours.*
  - BNL: *Peter Boyle (*pboyle@bnl.gov*)*
  - FNAL: Jim Simone (simone@fnal.gov)
  - JLab: Robert Edwards (edwards@jlab.org)

Distribution of Class A: by Area

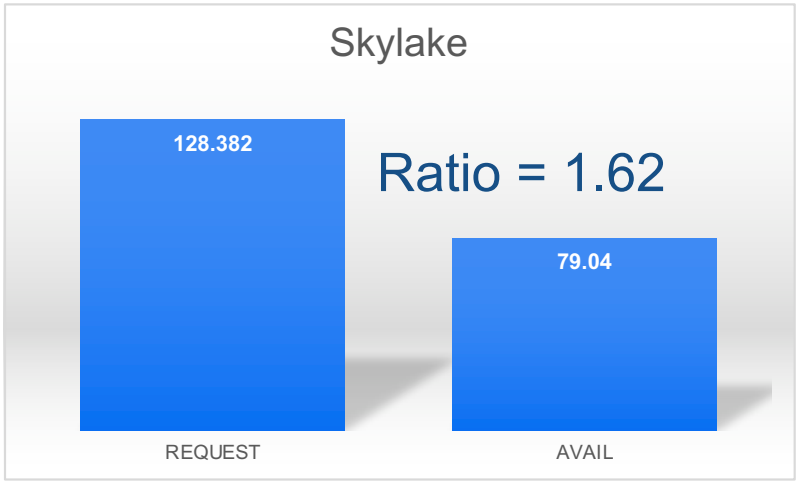
- Energy Frontier (EF) - 4
  - BSM: Composite Higgs, etc.
- EF/NP - 3
  - Strange-quark ME, PDFs
- Intensity Frontier (IF) - 8
  - 2 g-2
  - 6 flavor physics
- Cold NP - 9
  - 2 Resonances
  - 1 Nuclear ME
  - 1 nEDM
  - 5 Structure: 1D and 3D
- Hot QCD - 2
- IF/NP - 4 { NP important for HEP, e.g. DUNE / Both NP and HEP

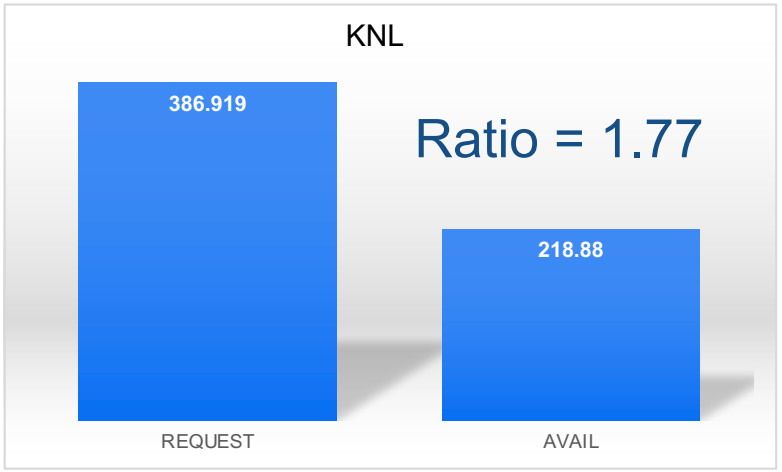
NB. *Class B are more HEP weighted*

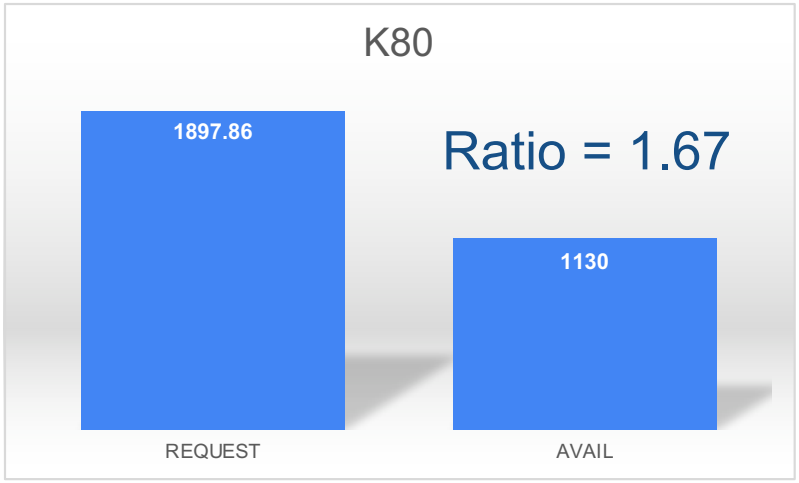
Important for HEP: 19
Important for NP: 18

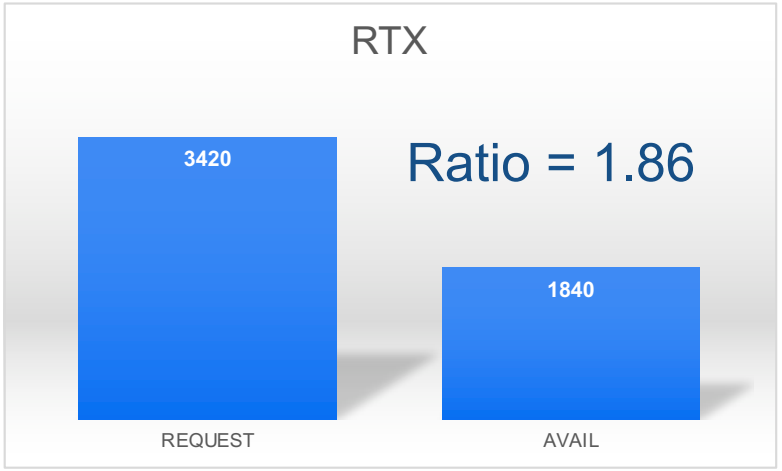
My takeaway - *both NP and HEP have more than 50% of proposals with important impact for their area.*

Distribution of Class A: By Resource



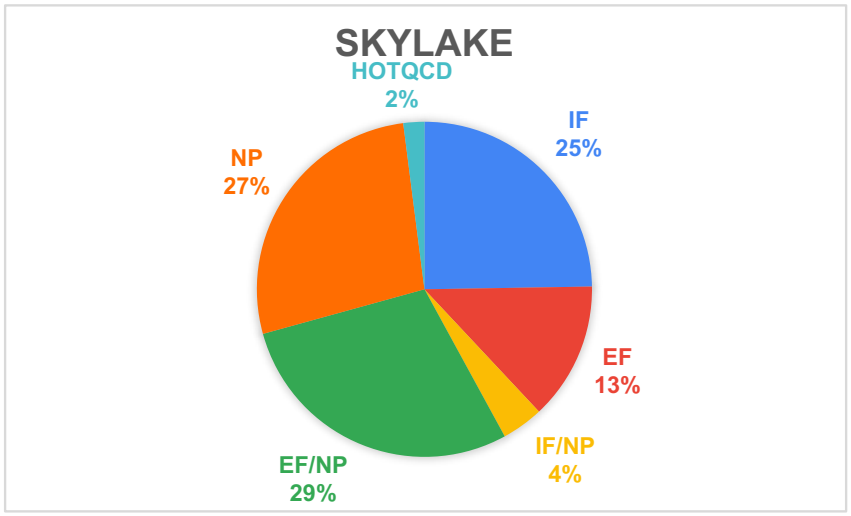


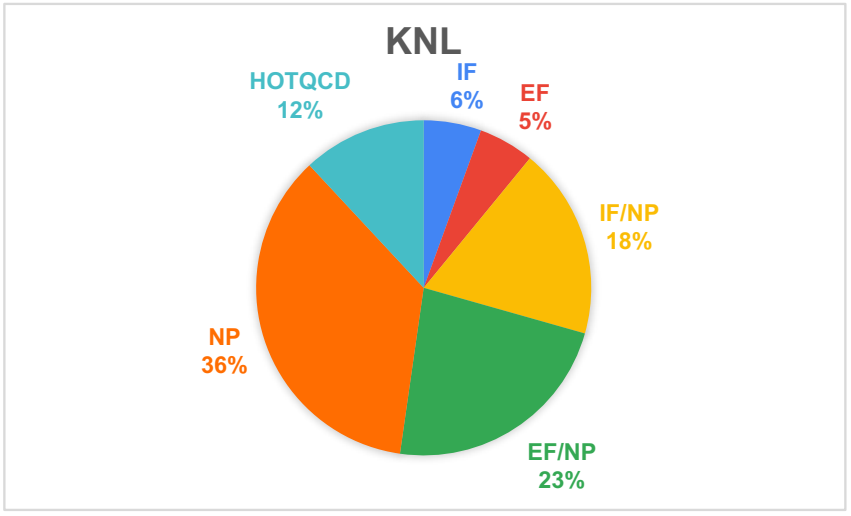


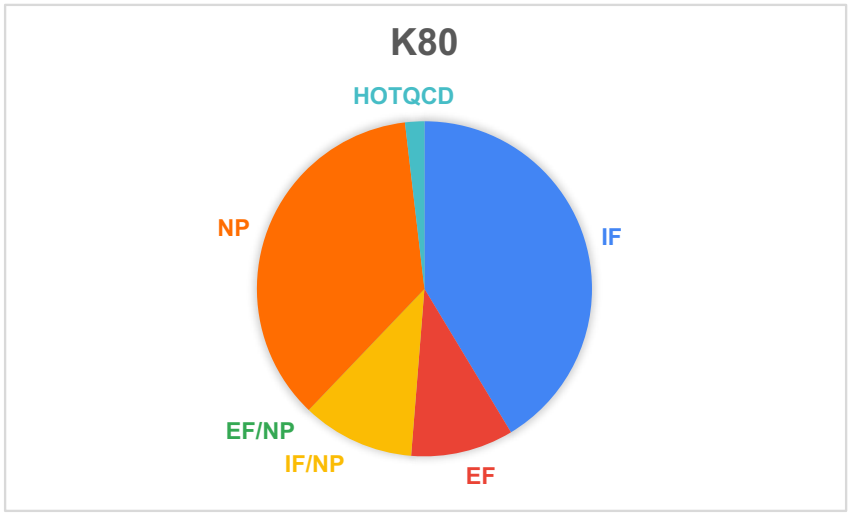


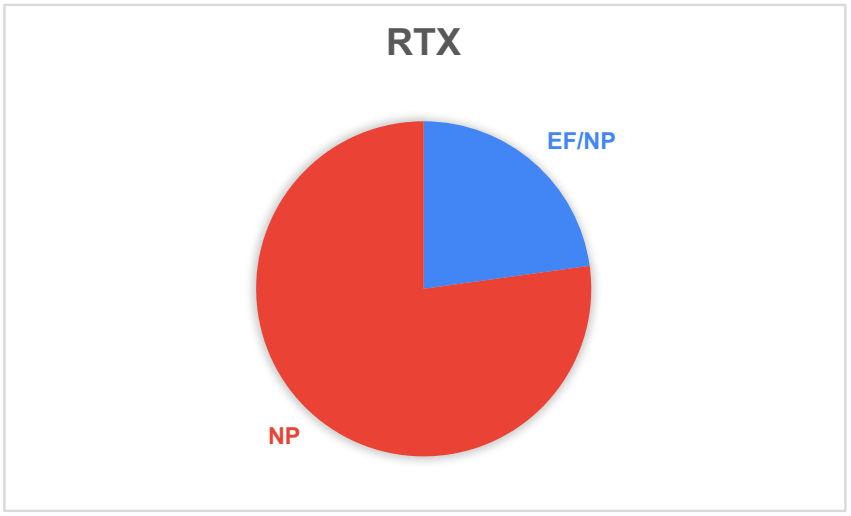
Considerably more over-subscribed! 1.48-1.86 in 2020-2021

Resource Requests by Field









Next Steps

- Thank you all for responding to the questions!
  - Came in on time
  - We are reviewing them now….
- Recommend allocations:
  - scientific merit
  - alignment with USQCD goals, and those of US HEP/NP programs
  - Efficient use of resources
  - avoid duplication of effort, redundancy - *though that can be needed, e.g. g-2.*
  - balance between HEP and NP

Other Duties

- Agenda of AHM - *thank you Tanmoy*.
- Work with Site Managers and EC:
  - Efficient assigning of projects to resources
  - Jeopardy policies and implementation.
  - Respond to new/changes in resources throughout the allocation year.
- Work with EC on broader USQCD program
  - e.g. INCITE, Whitepapers, reviews.
- Fulfill role of *Nominating Committee* for elected member of Executive Committee.
  - Huey-Wen Lin last year.

For this meeting….

- If you wish to ask question, or contribute to round discussion:
  - Use chat - to everyone
  - In general, not necessary to pose question in chat, just say you want to contribute
  - Chairman will go through the list…
- Please remember to “unmute” before speaking, and “mute” afterwards