Introduction

HSF Generators WG
10 March 2022

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Recent news

- First meeting back after a long hiatus!

- We have a change of conveners
  - Outgoing: Andrea Valassi
  - Incoming: Markus Diefenthaler

- We have written a short review review of activities last year and plans for the coming year:

- Snowmass Generators Whitepaper
  - We added some input from the HSF side based on LHCC review and previous WG paper
  - Stefan will give us an update today!
Upcoming meetings

- We are starting to plan future meetings through the rest of the year
  - We thought it might be useful to generally have meetings on the first Thursday of each month (with some variation around holidays etc.)

- Tentative schedule (to be confirmed!):
  - 10th March: Snowmass Generators Whitepaper
  - 24th March: Recent ATLAS V+jets paper discussion ([link](#))
  - 7th April: (TBC) Generator usage for neutrino experiments
  - 5th May: EIC/NP Generators usage

- Other foreseen topical meetings to be scheduled
  - Negative weights and resampling algorithms
  - Progress in GPU/vector CPU porting
  - AI/ML methods for Event Generation
Miscellanea

- We would like to build up a “living review” (à la HEPML-LivingReview) to document papers related to the WG activities
Back-ups
Miscellaneous recent papers of interest

Plans for 2022

● Snowmass White Paper on Event Generators
  ○ To highlight opportunities in event generator development that span several frontiers and experimental facilities, such as the LHC, next-generation neutrino experiments such as Dune and HyperK, Belle II, the EIC, the Forward Physics Facility, Heavy Ion experiments and future colliders.
  ○ Invited to prepare a contribution (~2 pages) on the computing performance of event generators, with a focus on recent work in the HEP Software Foundation.
  ○ MCnet collaboration will write an overview on efforts that are not covered under the HSF umbrella.
  ○ A first draft is almost ready.
  ○ Deadline March, 15th but aiming for a first draft by the end of January.