

iDMEu and the ESCAPE DM Projects and Joint ATLAS and CMS HepMC

Thursday 23 January 2025 14:40 (10 minutes)

With this talk, we would like to introduce the initiative for Dark Matter in Europe and beyond (iDMEu) and the ESCAPE Dark Matter Science Project. iDMEu is an initiative hosted by JENA (Joint ECFA, NuPECC and APPEC), and takes shape as a collective effort by a group of particle and astroparticle physicists to set up an online resource meta-repository, a common discussion platform and a series of meetings on topics concerning Dark Matter. The Dark Matter Science Project is a set of analyses / reinterpretations from different experiments (including one on dark showers) that have been implemented on a virtual research environment.

We would like to hear suggestions on how these initiatives and their connection to different communities (including those providing computing/tools) can help the dark showers benchmarking effort.

Acronyms, because this is needed by the author as well:

- ECFA (the European Committee for Future Accelerators)
- NuPECC (the Nuclear Physics European Collaboration Committee)
- APPEC (the Astroparticle Physics European Consortium)
- JENAA/JENAS (Joint ECFA, APPEC and NuPECC Activities/Seminar)
- ESCAPE (The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructures)
- ESFRI (European Strategy Forum on Research Infrastructures)

AND

With this talk, we would like to introduce the idea of using the dark showers HepMC files produced in this effort as a test case to exercise the (distributed) computing machinery that would allow ATLAS and CMS to share HepMC files.

If this works and there are no drawbacks to implementation even for large-scale samples, there are the following benefits:

ATLAS and CMS are able to compare results more easily if they start from the same HepMC theorists who want to reinterpret results can look at shared generation cards (rather than emailing each collaboration to find out what they are using)
we save storage space (which also has an environmental cost)

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Session Classification: Extended Talks