

# HEPscore23 status

D. Giordano (CERN/IT)

HEPiX Benchmarking WG

1 March 2023

# Summary of the WL status

- ❑ All workloads have been updated since the HEPscore workshop in Sep.
  - New versions of the experiment base code
  - Support for x86\_64 and aarch64
- ❑ Validation finalized for ALL workloads
  - Details will be provided by Ladislav in the next talk

Exp	WL	x86_64 / aarch64
ALICE	digi-reco	✓
ATLAS	gen_sherpa	✓
	reco_mt	✓
Belle2	gen-sim-reco	✓
CMS	gen-sim	✓
	reco	✓
LHCb	sim	✓

# LHCb workload

- ❑ Result of an intense activity done by
  - Andrea V. & the LHCb simulation team (LHCb software side)
  - Andrea V. & Gonzalo (WL build)
- ❑ New features
  - Latest Gauss v56r3 software release,
  - Port to ARM
  - Geant4 patch providing significant speedups



Domenico Giordano

New Docker container available [gitlab-registry.cern.c...](https://gitlab-registry.cern.ch/hep-benchmarks/hep-workloads/lhcb-sim-run3-ma-bmk:v1.0)

1 recipient

17 February 2023 at 17:07

[Details](#)

Dear HEP Benchmark developers,

we are pleased to inform that a new version has been released for the container image

Docker: [gitlab-registry.cern.ch/hep-benchmarks/hep-workloads/lhcb-sim-run3-ma-bmk:v1.0](https://gitlab-registry.cern.ch/hep-benchmarks/hep-workloads/lhcb-sim-run3-ma-bmk:v1.0)

Singularity:

[gitlab-registry.cern.ch/hep-benchmarks/hep-workloads-sif/lhcb-sim-run3-ma-bmk:v1.0\\_x86\\_64](https://gitlab-registry.cern.ch/hep-benchmarks/hep-workloads-sif/lhcb-sim-run3-ma-bmk:v1.0_x86_64)

[gitlab-registry.cern.ch/hep-benchmarks/hep-workloads-sif/lhcb-sim-run3-ma-bmk:v1.0\\_aarch64](https://gitlab-registry.cern.ch/hep-benchmarks/hep-workloads-sif/lhcb-sim-run3-ma-bmk:v1.0_aarch64)

COMMIT DESCRIPTION:

[lhcb2023ma] Upgrade to Gauss v56r3 instead of v56r2: this includes a Geant4...

See merge request [hep-benchmarks/hep-workloads!847](https://gitlab.cern.ch/hep-benchmarks/hep-workloads/-/pipelines/5148753)  
GitLab CI pipeline <https://gitlab.cern.ch/hep-benchmarks/hep-workloads/-/pipelines/5148753>

Please DO NOT REPLY  
Report automatically generated from GitLab CI in job <https://gitlab.cern.ch/hep-benchmarks/hep-workloads/-/jobs/27629271>

[Fri Feb 17 17:07:11 CET 2023]

Yours sincerely,  
HEPIX Benchmarking Working Group

# HEPscore23 configuration

- ❑ HEPscore v1.5 is the version we will test from today
  - Includes a single WL set (default)
  - 2 configuration files:
    1. Access SIF images from registry
    2. Access SIF unpacked images from CVMFS. Useful for runs in job slots or sites with cvmfs unpacked.cern.ch
- ❑ Custom configurations are still possible for other studies
  - Could be included in the configuration folder if desired

Name
..
↪ hepscore-cvmfs.yaml
↪ hepscore-default.yaml
{-} hepscore23-cvmfs.yaml
{-} hepscore23.yaml

# Next steps

- ❑ We are on track with the planned schedule
- ❑ We have 1 month to test and validate the configuration
  - Confirm the stability and usability of the benchmark
  - Add minor features to the HEPscore python code before release v2.0
- ❑ Resume the measurement procedure as done in the past
  - Reach an increasing number of WLCG sites, starting with the ones already involved in the past
  - Need to access as many CPU models as possible
    - Including ARM, and large core workloads

