

Computing Publications with Major Personal Contributions

Oliver Gutsche

January 1, 2026

A. Apresyan et al., **Detector R&D needs for the next generation e^+e^- collider**, (2023). <http://arxiv.org/abs/2306.13567>, arXiv:2306.13567 [hep-ex]

M. Atif et al., **Evaluating Portable Parallelization Strategies for Heterogeneous Architectures in High Energy Physics**, (2023). <http://arxiv.org/abs/2306.15869>, arXiv:2306.15869 [hep-ex]

B. Bockelman et al., **IRIS-HEP Strategic Plan for the Next Phase of Software Upgrades for HL-LHC Physics**, (2023). <http://arxiv.org/abs/2302.01317>, arXiv:2302.01317 [hep-ex]

V.D. Elvira et al., **The Future of High Energy Physics Software and Computing**, in: **Snowmass 2021**, 2022, doi:[10.2172/1898754](https://doi.org/10.2172/1898754), arXiv:2210.05822 [hep-ex]

M. Bhattacharya et al., **Portability: A Necessary Approach for Future Scientific Software**, in: **Snowmass 2021**, 2022. <http://arxiv.org/abs/2203.09945>, arXiv:2203.09945 [physics.comp-ph]

J. Balcas et al., **Automated Network Services for Exascale Data Movement**, *EPJ Web Conf.* 295 (2024) 01009, doi:[10.1051/epjconf/202429501009](https://doi.org/10.1051/epjconf/202429501009)

O. Gutsche et al., **The U.S. CMS HL-LHC R&D Strategic Plan**, *EPJ Web Conf.* 295 (2024) 04050, doi:[10.1051/epjconf/202429504050](https://doi.org/10.1051/epjconf/202429504050), arXiv:2312.00772 [hep-ex]

K.H.M. Kwok et al., **Application of performance portability solutions for GPUs and many-core CPUs to track reconstruction kernels**, *EPJ Web Conf.* 295 (2024) 11003, doi:[10.1051/epjconf/202429511003](https://doi.org/10.1051/epjconf/202429511003), arXiv:2401.14221 [physics.acc-ph]

N. Smith et al., **A Ceph S3 Object Data Store for HEP**, *EPJ Web Conf.* 295 (2024) 01003, doi:[10.1051/epjconf/202429501003](https://doi.org/10.1051/epjconf/202429501003), arXiv:2311.16321 [physics.data-an]

N. Smith et al., **Coffea: Columnar Object Framework For Effective Analysis**, *EPJ Web Conf.* 245 (2020) 06012, doi:[10.1051/epjconf/202024506012](https://doi.org/10.1051/epjconf/202024506012), arXiv:2008.12712 [cs.DC]

J. Albrecht et al., **A Roadmap for HEP Software and Computing R&D for the 2020s**, *Comput. Softw. Big Sci.* 3 (2019) 7, doi:[10.1007/s41781-018-0018-8](https://doi.org/10.1007/s41781-018-0018-8), arXiv:1712.06982 [physics.comp-ph]

-
- Full List of Physics Publications with Major Personal Contributions can be found [here](#).
 - Full List of Computing Publications with Major Personal Contributions can be found [here](#).
 - Full List of Publications from all Collaborations and Experiments can be found [here](#).