Acts Parallelization Meeting

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May 3, 2024

- **SYCL Clusterization Test Fix, main branch (2024.04.20.)** (PR#548)
  by @krasznaa, no assignee, merged on 2024-04-20
- **Add timers to seq_example** (PR#541)
  by @SylvainJoube, no assignee, merged on 2024-04-20
- **Cell Reading Rewrite, main branch (2024.04.19.)** (PR#547)
  by @krasznaa, no assignee, merged on 2024-04-22
- **Project Version Update, main branch (2024.04.22.)** (PR#551)
  by @krasznaa, no assignee, merged on 2024-04-22
- **(Host and CUDA) Measurement Sorting, main branch (2024.04.22.)** (PR#550)
  by @krasznaa, no assignee, merged on 2024-04-23
- **Add vecmem/device interaction to alpaka test** (PR#549)
  by @StewMH, no assignee, merged on 2024-04-23
- **Project Version Update, main branch (2024.04.24.)** (PR#553)
  by @krasznaa, no assignee, merged on 2024-04-24

- **⑂ Make alpaka queue blocking, fix serial CPU running** (PR#555)
  by @StewMH, no assignee, merged on 2024-04-25

- **⑂ Data V6, main branch (2024.04.24.)** (PR#554)
  by @krasznaa, no assignee, merged on 2024-04-25

- **⑂ ODD CUDA Reconstruction, main branch (2024.04.23.)** (PR#552)
  by @krasznaa, no assignee, merged on 2024-04-25

- **⑂ ref: Use angle from surface class instead of intersector** (PR#557)
  by @niermann999, no assignee, merged on 2024-04-26

- **⑂ Skip the holes for GPU CKF** (PR#556)
  by @beomki-yeo, no assignee, merged on 2024-04-29

- **⑂ ref: detray update to version 0.64.1** (PR#559)
  by @niermann999, no assignee, merged on 2024-04-30

acts-project/traccc: Open PRs I

- **⑂ rocThrust for thrust functionality in HIP** (PR#560)
  by @StewMH, ⚠ **no assignee**, updated on 2024-05-01

- **⑂ CUDA CI Update, main branch (2024.04.17.)** (PR#544)
  by @krasznaa, ⚠ **no assignee**, updated on 2024-04-30

- **⑂ Alpaka: Clustering + Throughput** (PR#558)
  by @CrossR, ⚠ **no assignee**, updated on 2024-04-26

- **⑂ Specific documentation on ROOT for traccc** (PR#535)
  by @SylvainJoube, ⚠ **no assignee**, updated on 2024-04-21

- **⑂ Add track tree writer** (PR#503)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2024-04-15

- **⑂ Update to new detray geometry reading for alpaka seeding** (PR#514)
  by @StewMH, ⚠ **no assignee**, updated on 2024-02-07

- **⑂ Add check format local** (PR#490)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-11-20

acts-project/traccc: Open PRs II

- **⑂ Add functions to calculate pvalue** (PR#405)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-10-26

- **⑂ Sort track parameters before CKF** (PR#473)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-10-21

- **⑂ feat: implement digitization configurator for detray geometries** (PR#465)
  by @niermann999, ⚠ **no assignee**, updated on 2023-10-20

- **⑂ SYCL test in gitlab CI** (PR#461)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-10-06

- **⑂ Asynchronous operation for Track Finding and Fitting** (PR#462)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-09-30

- **⑂ Add SYCL CKF** (PR#460)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-09-29

- **⑂ Add oneDPL for SYCL** (PR#442)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-09-29

acts-project/traccc: Open PRs III

- **Improvements to the CCL test data generator** (PR#457)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-09-12

- **CUDA CKF with single kernel** (PR#408)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-07-17

- **Add scripts for plotting throughput measurements** (PR#375)
  by @guilhermeAlmeida1, ⚠ **no assignee**, updated on 2023-06-16

- **Add a very simple seeding efficiency plotter** (PR#370)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-06-05

- **Implement seed finding Thunderdome in CUDA** (PR#410)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-05-27

- **Add Spack development environment specification** (PR#364)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-05-11

- **Implement CUDA block- and warp-wide odd-even sort** (PR#347)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-04-20

acts-project/traccc: Open PRs IV

- **Alternative CUDA implementation of seed finding** (PR#230)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-03-26

- **Implement and test a CUDA version of the module map** (PR#154)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-03-17

- **MPS benchmarking scripts and test workflow** (PR#244)
  by @Chamodya-ka, ⚠ **no assignee**, updated on 2023-01-25

- **added mps script tests** (PR#255)
  by @Chamodya-ka, ⚠ **no assignee**, updated on 2023-01-25

- **Add infrastructure for CUDA graph algorithms** (PR#307)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-01-25

- **Implement CUDA spacepoint formation with flat EDM** (PR#158)
  by @stephenswat, ⚠ **no assignee**, updated on 2022-04-01

- **Update algebra-plugins and Vectorize the benchmark** (PR#717)
  by @beomki-yeo, no assignee, merged on 2024-04-23
- **ref: Reuse ray/helix scan results and switch to random track generator** (PR#713)
  by @niermann999, no assignee, merged on 2024-04-25
- **ref: Allow parameter transport to any surface with material** (PR#722)
  by @niermann999, no assignee, merged on 2024-04-26
- **fix: To make traccc update work** (PR#725)
  by @niermann999, no assignee, merged on 2024-04-29
- **ref:Some additional checks during detector building** (PR#724)
  by @niermann999, no assignee, merged on 2024-04-30
- **feat: dump truth intersections to file** (PR#726)
  by @niermann999, no assignee, merged on 2024-04-30
- **fix: json file checker** (PR#719)
  by @niermann999, no assignee, merged on 2024-05-01
- **fix: Allow vacuum in material maps** (PR#729)
  by @niermann999, no assignee, merged on 2024-05-03

acts-project/detray: Open PRs I

- **⑂ feat: Add material map display to svgtools** (PR#720)
  by @niermann999, ⚠ **no assignee**, updated on 2024-05-03

- **⑂ First prototype of a context-aware store** (PR#728)
  by @tsulaiav, ⚠ **no assignee**, updated on 2024-05-02

- **⑂ ref: Deduplicate navigation validation code and make it more reusable** (PR#727)
  by @niermann999, ⚠ **no assignee**, updated on 2024-05-01

- **⑂ ref: Allow printing of propagation config and remove templates** (PR#718)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-30

- **⑂ feat: Move material maps generation to factory, add material maps to new toy detector and remove old toy detector** (PR#709)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-30

- **⑂ feat: Add simd intersectors and benchmark them** (PR#712)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-28

acts-project/detray: Open PRs II

- **⑂ ref: Remove the incidence angle from the intersection** (PR#723)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-28

- **⑂ feat: Add cpu propagation benchmarks that use openMP** (PR#404)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-16

- **⑂ ref: Add new stepper policy and benchmark it** (PR#327)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-16

- **⑂ Multiple scattering in the volume material** (PR#677)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2024-02-18

- **⑂ add vecpar example** (PR#235)
  by @georgi-mania, ⚠ **no assignee**, updated on 2023-05-15

- **⑂ Add support for C++20 concepts** (PR#447)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-04-14

- ⎇ **[WIP] Add cms caching cuda allocator** (PR#79)
  by @cgleggett, ⚠ **no assignee**, updated on 2021-04-28

- ⑂ **Vectorize the cmath matrix operations** (PR#116)
  by @beomki-yeo, no assignee, merged on 2024-04-20

- ⑂ **Vectorize the rotate function of cmath transform3** (PR#120)
  by @beomki-yeo, no assignee, merged on 2024-04-22

- ⑂ **feat: add a Vc SoA implementation for transform3** (PR#97)
  by @niermann999, no assignee, merged on 2024-04-24

acts-project/algebra-plugins: Open PRs I

- **⑃ ref: Restore explicit vectorization in the Vc AoS plugin** (PR#118)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-25

- **⑃ CI test** (PR#123)
  by @niermann999, ⚠ **no assignee**, updated on 2024-04-25

acts-project/covfie: Open PRs I

- **Replace 'boost::filesystem' by 'std::filesystem'** (PR#14)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-10-12