Acts Parallelization Meeting

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acts-project/traccc: PRs merged between 2023-05-19 and 2023-06-16 I

- ⑂ **Update detray version to v0.32.0** (PR#406)
  by @beomki-yeo, no assignee, merged on 2023-05-19
- ⑂ **Add tests for container copy** (PR#395)
  by @beomki-yeo, no assignee, merged on 2023-05-30
- ⑂ **Remove seeding internal unit system and refactor interface** (PR#403)
  by @beomki-yeo, no assignee, merged on 2023-06-12
- ⑂ **Record fitting statistics (Ndf, Chi2) in KF and Add its plot tool** (PR#394)
  by @beomki-yeo, no assignee, merged on 2023-06-12
- ⑂ **Add tests for seeding edge cases** (PR#416)
  by @beomki-yeo, no assignee, merged on 2023-06-12
- ⑂ **Change input parameter for kalman fitting test** (PR#417)
  by @beomki-yeo, no assignee, merged on 2023-06-13
- ⑂ **Add CUDA Track Finding Algorithm based on CKF** (PR#352)
  by @beomki-yeo, no assignee, merged on 2023-06-13

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- **Add B field as an input for track parameter estimation** (PR#418)
  by @beomki-yeo, ⚠️ **no assignee**, updated on 2023-06-16

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

- **Add CKF examples with detray toy detector** (PR#411)
  by @beomki-yeo, ⚠️ **no assignee**, updated on 2023-06-15

- **Fix: Handle empty inputs gracefully** (PR#415)
  by @guilhermeAlmeida1, ⚠️ **no assignee**, updated on 2023-06-09

- **feat: Test cuda full chain against cpu** (PR#388)
  by @guilhermeAlmeida1, ⚠️ **no assignee**, updated on 2023-06-06

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

- **CUDA CKF with single kernel** (PR#408)
  by @beomki-yeo, ⚠️ **no assignee**, updated on 2023-05-28

acts-project/traccc: Open PRs II

- **Seeding algorithm** (PR#407)
  by @Yhatoh, ⚠ **no assignee**, updated on 2023-05-28

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

- **Add functions to calculate pvalue** (PR#405)
  by @beomki-yeo, ⚠ **no assignee**, updated on 2023-05-18

- **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

- **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

acts-project/traccc: Open PRs III

- **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

acts-project/detray: PRs merged between 2023-05-19 and 2023-06-16 I

- **Refactor covariance transport test and Add more cases** (PR#457)
  by @beomki-yeo, no assignee, merged on 2023-05-19
- **Update Projection Version to v0.33.0** (PR#480)
  by @beomki-yeo, no assignee, merged on 2023-05-19
- **Const qualifier for free<->bound transform funtions** (PR#481)
  by @beomki-yeo, no assignee, merged on 2023-05-19
- **Update detray version to v0.34.0** (PR#483)
  by @beomki-yeo, no assignee, merged on 2023-05-22
- **move inspectors to utils** (PR#489)
  by @beomki-yeo, no assignee, merged on 2023-05-31
- **ref: add buffers to existing detray stores** (PR#488)
  by @niermann999, no assignee, merged on 2023-06-01
- **ref: volume interface** (PR#479)
  by @niermann999, no assignee, merged on 2023-06-06

- ⌥ **grid: non-owning single view** (PR#492)
  by @niermann999, no assignee, merged on 2023-06-14

- ⌥ **grid: join view** (PR#493)
  by @niermann999, no assignee, merged on 2023-06-15

- ⌥ **grid: refactor voume neighborhood call** (PR#494)
  by @niermann999, no assignee, merged on 2023-06-16

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- **ref: add grids to navigation** (PR#456)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-06-16
- **feat: Enable reading of a solenoid field map in the toy geometry** (PR#399)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-06-14
- **ref: split metadata and add full metadata as default to detector** (PR#486)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-06-14
- **WIP: Navigator with max constrained step size under Arbitray B field and Interactions** (PR#491)
  by @beomki-yeo, ⚠️ **no assignee**, updated on 2023-06-13
- **test: itk** (PR#478)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-06-01
- **draft: refactor tuple container to vecmem-style approach** (PR#487)
  by @guilhermeAlmeida1, ⚠️ **no assignee**, updated on 2023-06-01

acts-project/detray: Open PRs II

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

- **feat: material builders** (PR#364)
  by @niermann999, ⚠ **no assignee**, updated on 2023-04-19

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

- **feat: Add cpu propagation benchmarks that use openMP** (PR#404)
  by @niermann999, ⚠ **no assignee**, updated on 2023-04-10

- **feat: stepper print inspector** (PR#402)
  by @niermann999, ⚠ **no assignee**, updated on 2023-04-10

- **ref: Add new stepper policy and benchmark it** (PR#327)
  by @niermann999, ⚠ **no assignee**, updated on 2022-11-10

- ⑃ **Introduce vecmem::sycl::local_accessor, main branch (2023.05.31.)** (PR#230)
  by @krasznaa, no assignee, merged on 2023-05-31
- ⑃ **(Open)SYCL Fixes, main branch (2023.06.01.)** (PR#231)
  by @krasznaa, no assignee, merged on 2023-06-05
- ⑃ **Ref: Allow 0 byte (de)allocation** (PR#232)
  by @guilhermeAlmeida1, no assignee, merged on 2023-06-12
- ⑃ **Doxygen Improvement, main branch (2023.06.12.)** (PR#234)
  by @krasznaa, no assignee, merged on 2023-06-12

- **Fix: Check if no allocation is necessary in jagged vec buffer** (PR#233)
  by @guilhermeAlmeida1, ⚠ **no assignee**, updated on 2023-06-14

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

acts-project/algebra-plugins: Open PRs I

- 🖇 **External Build Re-Design, main branch (2023.05.25.)** (PR#104)
  by @kraszaa, ⚠️ **no assignee**, updated on 2023-05-25

- 🖇 **feat: SoA layout for vector** (PR#95)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-04-03

- 🖇 **feat: add a Vc SoA implementation for transform3** (PR#97)
  by @niermann999, ⚠️ **no assignee**, updated on 2023-03-29