Pull request and issue summary for acts-project/acts

December 13, 2022
- **fix: and refactor root writer closing** (PR#1712)
  by @andiwand, no assignee, merged on 2022-12-07

- **feat: MultiTrajectory track state ranges** (PR#1701)
  by @paulgessinger, no assignee, merged on 2022-12-07

- **feat: Any type with configurable small buffer optimization** (PR#1695)
  by @paulgessinger, no assignee, merged on 2022-12-07

- **fix: Change theta and eta calls on only 3D Vectors** (PR#1706)
  by @pbutti, no assignee, merged on 2022-12-08

- **refactor: transpose vectors in AMVF logging** (PR#1719)
  by @andiwand, no assignee, merged on 2022-12-08

- **fix: potential floating point over/underflow** (PR#1709)
  by @andiwand, assigned to @paulgessinger, merged on 2022-12-08

- **fix: fix FPE and refactor GSF component reduction** (PR#1710)
  by @benjaminhuth, no assignee, merged on 2022-12-09

- **fix: Protection against v == 0 in template_switch** (PR#1707)
  by @CarloVarni, no assignee, merged on 2022-12-09
fix: MultiTrajectory specialize DynamicColumn for bool (PR#1730)
by @paulgessinger, no assignee, merged on 2022-12-12

refactor!: CKF interface change to once per seed (PR#1705)
by @paulgessinger, no assignee, merged on 2022-12-12

refactor!: Add ability for cloning loggers with new name / level (PR#1724)
by @paulgessinger, no assignee, merged on 2022-12-12

fix: remove ‘CustomDefaultLogger.cpp’-entry from docs (PR#1735)
by @AJPfleger, assigned to @paulgessinger, merged on 2022-12-12

refactor!: Switch SourceLink to container (PR#1616)
by @paulgessinger, no assignee, merged on 2022-12-12

chore: Script to merge hash txt files (PR#1728)
by @paulgessinger, no assignee, merged on 2022-12-12

feat: root event diff script (PR#1737)
by @andiwand, assigned to @benjaminhuth, merged on 2022-12-13

feat: examples CSV track param writer (PR#1717)
by @andiwand, no assignee, merged on 2022-12-13
feat: track modifier for examples (PR#1726)
by @andiwand, no assignee, merged on 2022-12-13

chore: Bump ’bundled’ pybind11 to v2.10.1 (PR#1738)
by @paulgessinger, no assignee, merged on 2022-12-13
acts-project/acts: Open PRs

- **test:** Only run pythia8 tests if enabled (PR#1739)
  by @paulgessinger, assigned to @andiwand, updated on 2022-12-13

- **refactor!:** Fitters use loggers more consistently (PR#1727)
  by @paulgessinger, no assignee, updated on 2022-12-13

- **refactor:** SourceLink uses custom Acts::Any (PR#1740)
  by @paulgessinger, assigned to @andiwand, updated on 2022-12-13

- **fix:** Fixing navigation failures on volume boundaries edges (PR#1722)
  by @noemina, assigned to @noemina, updated on 2022-12-13

- **feat:** Make Clusterization.hpp aware of grid dimensionality (PR#1634)
  by @gagnonlg, no assignee, updated on 2022-12-13

- **feat:** track 2d/z and track 3d signed lifetimes (PR#1741)
  by @pbutti, no assignee, updated on 2022-12-13

- **feat:** Floating point exception monitoring (PR#1649)
  by @paulgessinger, no assignee, updated on 2022-12-13
acts-project/acts: Open PRs II

- **fix: Energy loss function** (PR#1323)
  by @beomki-yeo, no assignee, updated on 2022-12-13

- **feat: align amvf config with athena** (PR#1723)
  by @andiwand, no assignee, updated on 2022-12-13

- **feat: Add python bindings to HoughTransform algorithm** (PR#1721)
  by @tboldagh, assigned to @jahreda, updated on 2022-12-13

- **refactor: physmon vertexing** (PR#1688)
  by @andiwand, no assignee, updated on 2022-12-13

- **fix: GX2F: write correct chi2 to root** (PR#1725)
  by @AJPfleger, no assignee, updated on 2022-12-13

- **fix: remove double to bool conversion in vertexing** (PR#1673)
  by @andiwand, no assignee, updated on 2022-12-13

- **feat: Optionally decorate geometry dumps to json.** (PR#1732)
  by @goetzgaycken, no assignee, updated on 2022-12-12
acts-project/acts: Open PRs  III

- 📌 **feat**: Add BoundingBox to DetectorVolume (PR#1733)
  by @Matthewharri, ⚠️ no assignee, updated on 2022-12-12

- 📌 **perf**: Improve performance of k-d tree (PR#1714)
  by @stephenswat, ⚠️ no assignee, updated on 2022-12-12

- 📌 **refactor!**: Refactored SeedFinder to avoid the need to recreate it for every event (PR#1693)
  by @tboldagh, ⚠️ no assignee, updated on 2022-12-09

- 📌 **feat**: Add Geometry ID hook for the endcap strip of the ODD (PR#1696)
  by @Corentin-Allaire, assigned to @benjaminhuth, updated on 2022-12-08

- 📌 **refactor**: python reconstruction trajectory writing (PR#1718)
  by @andiwand, ⚠️ no assignee, updated on 2022-12-08

- 📌 **fix**: Correct degeneracy check for ‘Range1D‘ (PR#1715)
  by @stephenswat, ⚠️ no assignee, updated on 2022-12-08

- 📌 **fix**: If ITk module splitting is enabled also split back side modules. (PR#1716)
  by @goetzgaycken, ⚠️ no assignee, updated on 2022-12-07
acts-project/acts: Open PRs IV

- **feat:** geometry id delegate (Experimental) (PR#1684)
  - by @asalzburger, no assignee, updated on 2022-11-28

- **perf:** Tile 8×8 covariance matrix multiplication (PR#1181)
  - by @stephenswat, no assignee, updated on 2022-11-21

  - **WIP** feat!: Track class first iteration (PR#1729)
    - by @paulgessinger, no assignee, updated on 2022-12-13

  - **WIP** build: Add -Wconversion to compiler warnings (PR#1676)
    - by @benjaminhuth, no assignee, updated on 2022-11-22

  - **WIP** Stale docs: adding Fatras description (PR#1402)
    - by @asalzburger, assigned to @asalzburger, updated on 2022-11-12

  - **WIP** Stale refactor: Create and use Acts::SpacePoint as input for public interface of Seedfinder! (PR#1394)
    - by @robertlangenberg, no assignee, updated on 2022-11-12

  - **WIP** refactor: modernize & add checks to ‘Acts::TrackingGeometryBuilder’ (PR#1656)
    - by @benjaminhuth, no assignee, updated on 2022-11-07
acts-project/acts: Open PRs

- **WIP** ci: test exatrkx training ci (PR#1505)
  by @benjaminhuth, no assignee, updated on 2022-11-03

- **WIP** feat: Python documentation (PR#1633)
  by @benjaminhuth, no assignee, updated on 2022-10-28

- **WIP** feat: port RootNTupleReader (PR#1620)
  by @andiwand, no assignee, updated on 2022-10-27

- **WIP** Stale docs: first brush over the geometry pages (PR#1395)
  by @asalzburger, assigned to @asalzburger, updated on 2022-10-16

- **WIP** Stale docs: polish tgeo plugin doc (PR#1397)
  by @niermann999, assigned to @niermann999, updated on 2022-10-16

- **WIP** Stale fix: B-field interpolation errors (PR#1467)
  by @timadye, no assignee, updated on 2022-10-12

- **WIP** Stale feat: Enable more fine-grained digitization configuration (PR#1272)
  by @benjaminhuth, no assignee, updated on 2022-10-03
acts-project/acts: Open PRs VI

- WIP Stale feat: Adding unit tests for perigee propagation outside beam pipe (PR#1354) by @asalzburger, no assignee, updated on 2022-09-09

- WIP Stale feat!: Allow regional seeding configuration (PR#1187) by @Corentin-Allaire, no assignee, updated on 2022-07-30
- **Drop 'boost progress' from examples where it is not used** (Issue #1736)
  - by @tboldagh, no assignee, updated on 2022-12-12
- **Remove 'volumeSignature' from geometry building** (Issue #1731)
  - by @paulgessinger, no assignee, updated on 2022-12-12
- **Rare navigator failure causing overflow FPE** (Issue #1720)
  - by @noemina, assigned to @noemina, updated on 2022-12-08
- **Python: Missing seedFinderOptions for Orthogonal Seeding** (Issue #1713)
  - by @CouthuresJeremy, no assignee, updated on 2022-12-06
acts-project/acts: All stale Issues / PRs

- 🔄 Stale Documentation update: Core (Issue#1418)
  by @paulgessinger, assigned to @andiwand, updated on 2022-11-23

- 🔄 Stale Documentation update: Examples (Issue#1420)
  by @paulgessinger, assigned to @andiwand, updated on 2022-11-23

- 🔄 Stale Documentation update: How-to (core) (Issue#1422)
  by @paulgessinger, no assignee, updated on 2022-11-23

- 🔔 WIP Stale docs: adding Fatras description (PR#1402)
  by @asalzburger, assigned to @asalzburger, updated on 2022-11-12

- 🔄 Stale bug: interpolation out of bounds with ATLAS B-field map (Issue#1484)
  by @timadye, no assignee, updated on 2022-11-12

- 🔔 WIP Stale refactor: Create and use Acts::SpacePoint as input for public interface of Seedfinder! (PR#1394)
  by @robertlangenberg, no assignee, updated on 2022-11-12

- 🔄 Stale Documentation update: Plugins (Issue#1421)
  by @paulgessinger, assigned to @paulgessinger, updated on 2022-10-22
acts-project/acts: All stale Issues / PRs II

- ✔️ **Stale** Documentation update: FATRAS (Issue#1419)
  by @paulgessinger, assigned to @asalzburger, updated on 2022-10-22

- ✔️ **Stale** Vertexing produces vertex candidates that are unreasonable (Issue#1361)
  by @paulgessinger, no assignee, updated on 2022-10-22

- ✔️ **Stale** Add Primary Vertex Label to tracks (Issue#1544)
  by @Lucas-Borgna, no assignee, updated on 2022-10-22

- ✔️ **Stale** EDM Memory usage (Issue#1516)
  by @paulgessinger, no assignee, updated on 2022-10-22

- ✔️ **Stale** Documentation update: Contribution guidelines (Issue#1423)
  by @paulgessinger, assigned to @paulgessinger, updated on 2022-10-19

- 🤔 **WIP** ✔️ **Stale** docs: first brush over the geometry pages (PR#1395)
  by @asalzburger, assigned to @asalzburger, updated on 2022-10-16

- 🤔 **WIP** ✔️ **Stale** docs: polish tgeo plugin doc (PR#1397)
  by @niermann999, assigned to @niermann999, updated on 2022-10-16
acts-project/acts: All stale Issues / PRs III

- **WIP**  
  **Stale**  
  fix: B-field interpolation errors (PR#1467)  
  by @timadye, no assignee, updated on 2022-10-12

- **WIP**  
  **Stale**  
  feat: Enable more fine-grained digitization configuration (PR#1272)  
  by @benjaminhuth, no assignee, updated on 2022-10-03

- **Stale**  
  Monitor Floating Point Exceptions in CI (Issue#1481)  
  by @paulgessinger, no assignee, updated on 2022-10-01

- **Stale**  
  Optionally have the vertex finding recalculate perigee parameters relative to consistent reference (Issue#1482)  
  by @paulgessinger, no assignee, updated on 2022-10-01

- **Stale**  
  Full chain vertexing with AMVF (Issue#1406)  
  by @paulgessinger, no assignee, updated on 2022-10-01

- **Stale**  
  Documentation: hints for debugging (Issue#1463)  
  by @timadye, no assignee, updated on 2022-09-24

- **Stale**  
  KalmanFilter error: No measurement detected during the propagation (Issue#1328)  
  by @CarloVarni, no assignee, updated on 2022-09-21
acts-project/acts: All stale Issues / PRs IV

- **Stale** Vertexing produces unexpectedly poor efficiency (Issue #1362)
  by @paulgessinger, no assignee, updated on 2022-09-20

- **Stale** Ambiguous perigees with low momentum (Issue #1386)
  by @andiwand, no assignee, updated on 2022-09-20

- **Stale** Vertexing produces propagation errors (Issue #1345)
  by @paulgessinger, no assignee, updated on 2022-09-20

- **Stale** add monitoring for vertexing in physmon (Issue #1313)
  by @andiwand, assigned to @paulgessinger, updated on 2022-09-20

- **Stale** 2D r-z Magnetic Field Map Improperly Read (Issue #669)
  by @osbornjd, assigned to @timadyle, updated on 2022-09-20

- **Stale** Fatras: Bethe-Heitler calculation wrong? (Issue #1437)
  by @asalzburger, no assignee, updated on 2022-09-20

- **WIP** **Stale** feat: Adding unit tests for perigee propagation outside beam pipe (PR #1354)
  by @asalzburger, no assignee, updated on 2022-09-09
- Some writers performs their writes in the destructor (Issue#881)
  by @paulgessinger, assigned to @Corentin-Allaire, updated on 2022-08-11

- Vertexing issues observed in python vertexing example (Issue#1091)
  by @paulgessinger, no assignee, updated on 2022-08-11

- feat!: Allow regional seeding configuration (PR#1187)
  by @Corentin-Allaire, no assignee, updated on 2022-07-30

- Magnetic Field Storage (Issue#1239)
  by @osbornjd, no assignee, updated on 2022-06-12

- Reproducibility test using hash checks for non-linear KF (Issue#1246)
  by @paulgessinger, assigned to @XiaocongAi, updated on 2022-06-12

- Cut tube segment dd4hep conversion tests (Issue#1146)
  by @rahmans1, assigned to @asalzburger, updated on 2022-05-25

- Bug: fatras different particle final states between python and executable (Issue#1221)
  by @CouthuresJeremy, no assignee, updated on 2022-05-01
acts-project/acts: All stale Issues / PRs VI

- Stale ci: Coverage job is broken with gcovr >= 5.1 (Issue#1211)
  by @paulgessinger, assigned to @paulgessinger, updated on 2022-04-29

- Stale Bug: issue on first build after DD4hep update on system with globaly installed acts
  (Issue#1139)
  by @gagnonlg, no assignee, updated on 2022-02-22

- Stale Feat: Radial bounds in DD4hep plugin (Issue#822)
  by @whit2333, no assignee, updated on 2022-02-19

- Stale Add example (+test) for vertex fitting with constraints (Issue#1100)
  by @paulgessinger, no assignee, updated on 2022-01-07

- Stale Should seed finding tools have a higher-level interface? (Issue#988)
  by @stephenswat, assigned to @stephenswat, updated on 2021-11-25

- Stale [bug] Off axis endcap with dd4hep plugin. (Issue#942)
  by @whit2333, assigned to @asalzburger, updated on 2021-11-25

- Stale Improvement: Estimate track parameters from seed at perigee surface (Issue#1036)
  by @XiaocongAi, no assignee, updated on 2021-11-10
- Polyhedron surfaces tests are disabled (Issue #454) by @msmk0, assigned to @asalzburger, updated on 2021-11-04
- Tracking for TPC/DC without surfaces (Issue #165) by @FabianKlimpel, assigned to @asalzburger, updated on 2021-11-04
- BoundingBox tests fail on double precision (Issue #752) by @paulgessinger, assigned to @paulgessinger, updated on 2021-11-04
- Debug Information in Acts Seeder (Issue #944) by @osbornjd, assigned to @robertlangenberg, updated on 2021-10-21
- fix: avoid double-static cast (Issue #647) by @asalzburger, assigned to @asalzburger, updated on 2021-10-21