Pull request and issue summary for acts-project/acts

January 17, 2023

acts-project/acts: PRs merged between 2023-01-10 and 2023-01-17 I

- ▶ **refactor: python reconstruction trajectory writing** (PR#1718)
  by @andiwand, assigned to @benjaminhuth, merged on 2023-01-10

- ▶ **feat: Make Clusterization.hpp aware of grid dimensionality** (PR#1634)
  by @gagnonlg, no assignee, merged on 2023-01-10

- ▶ **feat: Add BoundingBox to DetectorVolume** (PR#1733)
  by @Matthewharri, no assignee, merged on 2023-01-10

- ▶ **fix: Orthogonal seeding beamspot and function** (PR#1775)
  by @CarloVarni, assigned to @noemina, merged on 2023-01-10

- ▶ **refactor: Make Examples binaries optional** (PR#1754)
  by @benjaminhuth, no assignee, merged on 2023-01-11

- ▶ **fix: maybe-uninitialized warning in DetectorVolume.cpp** (PR#1780)
  by @benjaminhuth, no assignee, merged on 2023-01-11

- ▶ **fix: Make 'Range1D' a proper half-open interval** (PR#1715)
  by @stephenswat, no assignee, merged on 2023-01-11

- ▶ **feat: Geat4 detector plugin, part 3 (final)** (PR#1760)
  by @asalzburger, no assignee, merged on 2023-01-11

acts-project/acts: PRs merged between 2023-01-10 and 2023-01-17 II

- ▶ ⌥ **fix: remove double to bool conversion in vertexing** (PR#1673)
  by @andiwand, no assignee, merged on 2023-01-11

- ▶ ⌥ **docs: Add new CERN students to 'CITATION.cff'** (PR#1781)
  by @stephenswat, no assignee, merged on 2023-01-12

- ▶ ⌥ **refactor!: Separate Config and Options for SpacePointGrid** (PR#1774)
  by @CarloVarni, assigned to @noemina, merged on 2023-01-13

- ▶ ⌥ **refactor: make addSeeding python function smaller** (PR#1768)
  by @tboldagh, assigned to @timadye, merged on 2023-01-13

- ▶ ⌥ **docs: update AUTHORS file** (PR#1783)
  by @benjaminhuth, no assignee, merged on 2023-01-13

- ▶ ⌥ **feat: throw runtime_error in seed finder if deltaR values were not initialised** (PR#1782)
  by @LuisFelipeCoelho, no assignee, merged on 2023-01-16

- ▶ ⌥ **perf: Improve performance of k-d tree** (PR#1714)
  by @stephenswat, no assignee, merged on 2023-01-16

- ▶ ⌥ **feat: More robust navigation with bent tracks** (PR#1769)
  by @benjaminhuth, no assignee, merged on 2023-01-16

- ⎇ **build: Add -Wfloat-conversion to clang warnings** (PR#1676)
  by @benjaminhuth, no assignee, merged on 2023-01-17

- ⎇ **fix: fix enum to test presence of inner tube cover surface.** (PR#1771)
  by @goetzgaycken, no assignee, merged on 2023-01-17

- ⎇ **fix: Missing Include in CuboidVolumeBuilder** (PR#1786)
  by @CarloVarni, no assignee, merged on 2023-01-17

- ⎇ **ci: Fix plot ranges in physmon vertexing plots** (PR#1787)
  by @paulgessinger, no assignee, merged on 2023-01-17

- ⎇ **refactor: Managing Seed Candidates with ad-hoc container** (PR#1764)
  by @CarloVarni, assigned to @noemina, merged on 2023-01-17

acts-project/acts: Open PRs I

- ⑂ **fix: If ITk module splitting is enabled also split back side modules.** (PR#1716)
  by @goetzgaycken, assigned to @niermann999, updated on 2023-01-17

- ⑂ **feat: Optionally decorate geometry dumps to json.** (PR#1732)
  by @goetzgaycken, ⚠ **no assignee**, updated on 2023-01-17

- ⑂ **fix: Energy loss function** (PR#1323)
  by @beomki-yeo, assigned to @asalzburger, updated on 2023-01-17

- ⑂ **build: Install Examples headers** (PR#1752)
  by @osbornjd, ⚠ **no assignee**, updated on 2023-01-17

- ⑂ **perf: Tile 8×8 covariance matrix multiplication** (PR#1181)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-01-17

- ⑂ **feat: GeoID hook from python & ODD hook** (PR#1779)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2023-01-17

- ⑂ **docs: Adding script and documentation for geometry and material handling** (PR#1784)
  by @noemina, assigned to @noemina, updated on 2023-01-17

acts-project/acts: Open PRs II

- ⌥ **feat: Visualization for DetectorVolume and Portal** (PR#1762)
  by @Matthewharri, ⚠ **no assignee**, updated on 2023-01-17

- ⌥ **refactor!: Changes to SeedFinderOrthogonal to allow reuse of the object** (PR#1757)
  by @tboldagh, ⚠ **no assignee**, updated on 2023-01-17

- ⌥ **refactor: physmon vertexing** (PR#1688)
  by @andiwand, ⚠ **no assignee**, updated on 2023-01-17

- ⌥ **feat: geometry id delegate** (PR#1684)
  by @asalzburger, ⚠ **no assignee**, updated on 2023-01-17

- ⌥ **feat: Add INFO printouts about the layers & volumes** (PR#1773)
  by @tboldagh, assigned to @asalzburger, updated on 2023-01-17

- ⌥ 🚧 WIP **feat: new Acts::Detector building from ProtoDetector description (cylindrical)** (PR#1767)
  by @asalzburger, ⚠ **no assignee**, updated on 2023-01-09

- ⌥ 🚧 WIP Stale **feat: port RootNTupleReader** (PR#1620)
  by @andiwand, ⚠ **no assignee**, updated on 2022-12-21

acts-project/acts: Open PRs III

- ▶ 🔀 **WIP** Stale **feat: Python documentation** (PR#1633)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2022-12-21

- ▶ 🔀 **WIP** Stale **refactor: modernize & add checks to 'Acts::TrackingGeometryBuilder'** (PR#1656)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2022-12-21

- ▶ 🔀 **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** 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

- ⑂ 🚧 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

▶ ⊙ Stale **Drop 'boost progress' from examples where it is not used** (Issue#1736)
by @tboldagh, ⚠ **no assignee**, updated on 2023-01-16

▶ ⊙ Stale **Remove 'volumeSignature' from geometry building** (Issue#1731)
by @paulgessinger, ⚠ **no assignee**, updated on 2023-01-16

acts-project/acts: All stale Issues / PRs I

- ⊙ Stale **Drop 'boost progress' from examples where it is not used** (Issue#1736)
  by @tboldagh, ⚠ **no assignee**, updated on 2023-01-16

- ⊙ Stale **Remove 'volumeSignature' from geometry building** (Issue#1731)
  by @paulgessinger, ⚠ **no assignee**, updated on 2023-01-16

- ⊙ Stale **Detailed timing per event** (Issue#1700)
  by @CouthuresJeremy, ⚠ **no assignee**, updated on 2023-01-05

- ⊙ Stale **Optimal seeding parameters for a detector** (Issue#1699)
  by @CouthuresJeremy, ⚠ **no assignee**, updated on 2023-01-05

- ⊙ Stale **Refactor Seeding to avoid repeated Finders instantiations** (Issue#1690)
  by @tboldagh, ⚠ **no assignee**, updated on 2022-12-24

- ⊙ Stale **Segfault for ODD+Pythia8+Geant4** (Issue#1578)
  by @andiwand, ⚠ **no assignee**, updated on 2022-12-24

- ⊙ Stale **Particle smearing assertion with Geant4** (Issue#1603)
  by @benjaminhuth, assigned to @benjaminhuth, updated on 2022-12-21

acts-project/acts: All stale Issues / PRs II

- ▶ ⊙ `Stale` **Create volume restricted BFieldMap** (Issue#1659)
  by @asalzburger, ⚠ **no assignee**, updated on 2022-12-21

- ▶ ⑂ `🚧 WIP` `Stale` **feat: port RootNTupleReader** (PR#1620)
  by @andiwand, ⚠ **no assignee**, updated on 2022-12-21

- ▶ ⑂ `🚧 WIP` `Stale` **feat: Python documentation** (PR#1633)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2022-12-21

- ▶ ⑂ `🚧 WIP` `Stale` **refactor: modernize & add checks to 'Acts::TrackingGeometryBuilder'**
  (PR#1656)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2022-12-21

- ▶ ⊙ `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

acts-project/acts: All stale Issues / PRs III

- ▶ ⏱ 🚧 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

- ▶ ⊙ `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

acts-project/acts: All stale Issues / PRs IV

- ⊙ `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

- ⇄ `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

acts-project/acts: All stale Issues / PRs V

▶ ⊙ `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` **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

acts-project/acts: All stale Issues / PRs VI

- ▶ ⊙ `Stale` **2D r-z Magnetic Field Map Improperly Read** (Issue#669)
  by @osbornjd, assigned to @timadye, 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

- ▶ ⊙ `Stale` **Some writers performs their writes in the destructor** (Issue#881)
  by @paulgessinger, assigned to @Corentin-Allaire, updated on 2022-08-11

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

- ▶ ⑂ `WIP` `Stale` **feat!: Allow regional seeding configuration** (PR#1187)
  by @Corentin-Allaire, ⚠ **no assignee**, updated on 2022-07-30

- ▶ ⊙ `Stale` **Magnetic Field Storage** (Issue#1239)
  by @osbornjd, ⚠ **no assignee**, updated on 2022-06-12

acts-project/acts: All stale Issues / PRs VII

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

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

- ⊙ `Stale` **Bug: fatras different particle final states between python and executable** (Issue#1221)
  by @CouthuresJeremy, ⚠ **no assignee**, updated on 2022-05-01

- ⊙ `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

acts-project/acts: All stale Issues / PRs VIII

- ▶ ⊙ 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

- ▶ ⊙ Stale **Polyhedron surfaces tests are disabled** (Issue#454)
  by @msmk0, assigned to @asalzburger, updated on 2021-11-04

- ▶ ⊙ Stale **Tracking for TPC/DC without surfaces** (Issue#165)
  by @FabianKlimpel, assigned to @asalzburger, updated on 2021-11-04

- ▶ ⊙ Stale **BoundingBox tests fail on double precision** (Issue#752)
  by @paulgessinger, assigned to @paulgessinger, updated on 2021-11-04

- ▶ ⊙ Stale **Debug Information in Acts Seeder** (Issue#944)
  by @osbornjd, assigned to @robertlangenberg, updated on 2021-10-21

- ▶ ⊙ Stale **fix: avoid double-static cast** (Issue#647)
  by @asalzburger, assigned to @asalzburger, updated on 2021-10-21