Pull request and issue summary for acts-project/acts

February 14, 2023

acts-project/acts: PRs merged between 2023-02-07 and 2023-02-14 I

- ▶ ⅄ **fix: GSF SourceLink reference** (PR#1833)
  by @Maury98, no assignee, merged on 2023-02-07

- ▶ ⅄ **fix: TGeo estimation of annulus bounds.** (PR#1796)
  by @goetzgaycken, no assignee, merged on 2023-02-07

- ▶ ⅄ **build: Install Examples headers** (PR#1752)
  by @osbornjd, no assignee, merged on 2023-02-08

- ▶ ⅄ **refactor: improve g4 sensitive surface mapper logging** (PR#1832)
  by @andiwand, no assignee, merged on 2023-02-08

- ▶ ⅄ **docs: Ignore https://cernvm.cern.ch linkcheck** (PR#1845)
  by @benjaminhuth, no assignee, merged on 2023-02-09

- ▶ ⅄ **fix: format docs/conf.py** (PR#1846)
  by @benjaminhuth, assigned to @andiwand, merged on 2023-02-09

- ▶ ⅄ **feat: wire geoid hooks in g4 detector** (PR#1843)
  by @andiwand, assigned to @benjaminhuth, merged on 2023-02-09

- ▶ ⅄ **ci: Mark ODD tests, move away from exact event count checks** (PR#1840)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-09

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- ▶ ⅃ **chore: move new style navigation into Core/Navigation** (PR#1841)
  by @asalzburger, no assignee, merged on 2023-02-09

- ▶ ⅃ **refactor: Move Chi2 example bindings to TrackFitting** (PR#1836)
  by @paulgessinger, no assignee, merged on 2023-02-09

- ▶ ⅃ **refactor: Make TrackAccessor methods const** (PR#1849)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-09

- ▶ ⅃ **feat: persist ACTS barcodes in G4 sim** (PR#1842)
  by @andiwand, assigned to @asalzburger, merged on 2023-02-09

- ▶ ⅃ **fix: Change MiddleSPRange considering deltaRMiddleMaxSPRange** (PR#1848)
  by @CarloVarni, assigned to @paulgessinger, merged on 2023-02-09

- ▶ ⅃ **fix: make full_chain_odd.py really work with pythia8+Geant4, add test** (PR#1844)
  by @benjaminhuth, no assignee, merged on 2023-02-10

- ▶ ⅃ **refactor: Move traj to proto track converter to separate target** (PR#1837)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-10

- ▶ ⅃ **refactor: Centralize Examples Track typedef** (PR#1838)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-10

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- ▶ 🔀 **fix: enable compilation with ONNX 1.13** (PR#1835)
  by @gagnonlg, assigned to @benjaminhuth, merged on 2023-02-10

- ▶ 🔀 **fix: Add rho-cut to the ParticleSelector for g4 ODD** (PR#1856)
  by @pbutti, no assignee, merged on 2023-02-11

- ▶ 🔀 **refactor: Trajectories stores MultiTrajectory pointer** (PR#1839)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-13

- ▶ 🔀 **fix: typo in reconstruction.py** (PR#1860)
  by @LuisFelipeCoelho, assigned to @andiwand, merged on 2023-02-13

- ▶ 🔀 **fix: output SP type in csv spacepoint reader** (PR#1861)
  by @LuisFelipeCoelho, no assignee, merged on 2023-02-13

- ▶ 🔀 **fix: FPE in RootTrajectorySummaryWriter** (PR#1853)
  by @andiwand, assigned to @paulgessinger, merged on 2023-02-13

- ▶ 🔀 **refactor: rename sim output files** (PR#1862)
  by @andiwand, assigned to @benjaminhuth, merged on 2023-02-14

- ▶ 🔀 **fix: periodic difference for Phi in RootSummaryWriter** (PR#1863)
  by @benjaminhuth, assigned to @andiwand, merged on 2023-02-14

- ⑂ **fix: Let Root writers accept empty Trajectories object** (PR#1864)
  by @benjaminhuth, assigned to @andiwand, merged on 2023-02-14

- ⑂ **refactor: print numeric value for multi index** (PR#1859)
  by @andiwand, assigned to @benjaminhuth, merged on 2023-02-14

- ⑂ **feat: post simulation particle filter** (PR#1851)
  by @andiwand, assigned to @benjaminhuth, merged on 2023-02-14

- ⑂ **feat: Add track to trajectory converter** (PR#1857)
  by @paulgessinger, assigned to @andiwand, merged on 2023-02-14

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- ⑃ **fix: Pass By Reference function and Extend object to binned group** (PR#1850)
  by @CarloVarni, ⚠ **no assignee**, updated on 2023-02-14

- ⑃ **refactor: Track Finding and Fitting algorithms output Tracks only** (PR#1858)
  by @paulgessinger, assigned to @andiwand, updated on 2023-02-14

- ⑃ **refactor: update itk_seeding.py** (PR#1865)
  by @LuisFelipeCoelho, ⚠ **no assignee**, updated on 2023-02-14

- ⑃ **feat: Set up ODD together with python if possible** (PR#1830)
  by @benjaminhuth, ⚠ **no assignee**, updated on 2023-02-14

- ⑃ **feat: add detector builder infrastructure** (PR#1814)
  by @asalzburger, ⚠ **no assignee**, updated on 2023-02-06

- ⑃ **perf: Tile 8×8 covariance matrix multiplication** (PR#1181)
  by @stephenswat, ⚠ **no assignee**, updated on 2023-01-31

- ⑃ **fix: Energy loss function** (PR#1323)
  by @beomki-yeo, assigned to @asalzburger, updated on 2023-01-21

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- ⑃ 🚧 **WIP** **feat: Example of integrating HoughTransform example algorithm with python** (PR#1795)
  by @tboldagh, ⚠️ **no assignee**, updated on 2023-02-14

- ⑃ 🚧 **WIP** **feat: configurable charge smearing in geometric digitization & exact digitization** (PR#1834)
  by @benjaminhuth, ⚠️ **no assignee**, updated on 2023-02-10

- ⑃ 🚧 **WIP** **refactor: Change transformCoordinates to avoid recalculation of variables in the Seedfinder** (PR#1831)
  by @LuisFelipeCoelho, ⚠️ **no assignee**, updated on 2023-02-09

- ⑃ 🚧 **WIP** **refactor: Seeding does not use a grid of pointers** (PR#1820)
  by @paulgessinger, ⚠️ **no assignee**, updated on 2023-02-08

- ⑃ 🚧 **WIP** **refactor: no optional covariance in GSF** (PR#1826)
  by @benjaminhuth, assigned to @andiwand, updated on 2023-02-06

- ⑃ 🚧 **WIP** **feat!: new cubic volume building** (PR#1821)
  by @asalzburger, ⚠️ **no assignee**, updated on 2023-02-03

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- ⑂ 🚧 WIP **docs: adding Fatras description** (PR#1402)
  by @asalzburger, assigned to @asalzburger, updated on 2023-01-18

- ⑂ 🚧 WIP **docs: first brush over the geometry pages** (PR#1395)
  by @asalzburger, assigned to @asalzburger, updated on 2023-01-18

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

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

- ⊙ **Bug: Unpredicatable navigation in layer with overlapping surface** (Issue#1852)
  by @Corentin-Allaire, ⚠ **no assignee**, updated on 2023-02-10

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- ⊙ Stale **Make central minimum track momentum threshold** (Issue#1761)
  by @paulgessinger, ⚠ **no assignee**, updated on 2023-01-21

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

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

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

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

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- ▶ ⊙ `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

- ▶ ⊙ `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

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

- ▶ ⊙ `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

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- ⊙ 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

- ⊙ 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

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- ⚙ 🏗 `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

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

- ⊙ `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

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- ⊙ 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

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- ⊙ 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