

















Pull request and issue summary for acts-project/acts

November 15, 2022



acts-project/acts: PRs merged between 2022-11-08 and 2022-11-15 |














- ▶  **feat: configurable weight factor for longitudinal impact parameter in seed weight** (PR#1632)
by @LuisFelipeCoelho, assigned to @andiwand, merged on 2022-11-08
- ▶  **feat: Add maxWeight reduction to the MultiEigenStepperLoop** (PR#1628)
by @benjaminhuth, assigned to @andiwand, merged on 2022-11-08
- ▶  **ci: Run physmon jobs in parallel** (PR#1654)
by @benjaminhuth, no assignee, merged on 2022-11-08
- ▶  **feat: Add a tool for writing B-fields to disk in CSV format** (PR#1470)
by @stephenswat, assigned to @stephenswat, merged on 2022-11-09
- ▶  **fix: move Exa.TrkX models to device explicitly** (PR#1664)
by @benjaminhuth, no assignee, merged on 2022-11-09
- ▶  **refactor: required for new ITk geometry** (PR#1653)
by @timadye, no assignee, merged on 2022-11-09
- ▶  **feat: Add thickness and pitch again to csv geometry writing** (PR#1663)
by @benjaminhuth, no assignee, merged on 2022-11-09
- ▶  **feat: volume bounds to/from Json** (PR#1660)
by @Matthewharri, no assignee, merged on 2022-11-10

acts-project/acts: PRs merged between 2022-11-08 and 2022-11-15 II





















- ▶  **ci: Bump some actions versions** (PR#1668)
by @paulgessinger, no assignee, merged on 2022-11-10
- ▶  **refactor: Large GSF refactoring** (PR#1629)
by @benjaminhuth, no assignee, merged on 2022-11-11
- ▶  **refactor: replace track params with trajectories in examples** (PR#1670)
by @andiwand, no assignee, merged on 2022-11-11
- ▶  **feat: Support space points writing** (PR#1671)
by @tboldagh, no assignee, merged on 2022-11-11
- ▶  **docs: how to get clang-format changes from CI** (PR#1667)
by @jahreda, no assignee, merged on 2022-11-11
- ▶  **refactor!: Move beam spot position and mag field value from SeedFinderConfig to SeedFinderOptions** (PR#1630)
by @tboldagh, no assignee, merged on 2022-11-12
- ▶  **docs: Improve GSF docs and add figures** (PR#1626)
by @benjaminhuth, no assignee, merged on 2022-11-14
- ▶  **feat: Basic GSF physics performance monitoring** (PR#1640)
by @benjaminhuth, no assignee, merged on 2022-11-14

acts-project/acts: PRs merged between 2022-11-08 and 2022-11-15 III






















- ▶  **feat: variable r range in orthogonal seeding** (PR#1621)
by @LuisFelipeCoelho, no assignee, merged on 2022-11-15
- ▶  **feat: Owning delegate** (PR#1674)
by @paulgessinger, assigned to @asalzburger, merged on 2022-11-15

- ▶  **feat: seeding performance monitoring** (PR#1665)
by @LuisFelipeCoelho,  **no assignee**, updated on 2022-11-15
- ▶  **build: Add -Wconversion to compiler warnings** (PR#1676)
by @benjaminhuth,  **no assignee**, updated on 2022-11-15
- ▶  **fix: Skip seeds with negative cotThetaAvg2** (PR#1655)
by @paulgessinger,  **no assignee**, updated on 2022-11-15
- ▶  **feat: Allow delegate to hold non-void instance** (PR#1675)
by @paulgessinger,  **no assignee**, updated on 2022-11-15
- ▶  **feat: adding portal, detector volume & detector** (PR#1645)
by @asalzburger,  **no assignee**, updated on 2022-11-11
- ▶  **feat: Hough Transform first implementation** (PR#1305)
by @jahreda, assigned to @asalzburger, updated on 2022-11-11
- ▶  **perf: Tile 8x8 covariance matrix multiplication** (PR#1181)
by @stephenswat,  **no assignee**, updated on 2022-11-10






























acts-project/acts: Open PRs II

- ▶  **docs: Added description of how to add new algorithm** (PR#1599)
by @tboldagh, assigned to @asalzburger, updated on 2022-11-09
- ▶   **chore: clang tidy headers** (PR#1662)
by @andiwand,  **no assignee**, updated on 2022-11-15
- ▶   **fix: weird ifs** (PR#1673)
by @andiwand,  **no assignee**, updated on 2022-11-15
- ▶   **feat: skip unnecessary iterations in seed filter if SPs are sorted by curvature** (PR#1672)
by @LuisFelipeCoelho,  **no assignee**, updated on 2022-11-14
- ▶    **docs: adding Fatras description** (PR#1402)
by @asalzburger, assigned to @asalzburger, updated on 2022-11-12
- ▶    **refactor: Create and use Acts::SpacePoint as input for public interface of Seedfinder!** (PR#1394)
by @robertlangenberg,  **no assignee**, updated on 2022-11-12
- ▶   **refactor: modernize & add checks to 'Acts::TrackingGeometryBuilder'** (PR#1656)
by @benjaminhuth,  **no assignee**, updated on 2022-11-07

acts-project/acts: Open PRs III









- ▶   **WIP** feat: **experimental geometry - surfaces, portals and volumes** (PR#1465)
by @asalzburger,  **no assignee**, updated on 2022-11-04
- ▶   **WIP** feat: **Floating point exception monitoring** (PR#1649)
by @paulgessinger,  **no assignee**, updated on 2022-11-04
- ▶   **WIP** refactor!: **Switch SourceLink to container** (PR#1616)
by @paulgessinger,  **no assignee**, updated on 2022-11-04
- ▶   **WIP** ci: **test exatrkx training ci** (PR#1505)
by @benjaminhuth,  **no assignee**, updated on 2022-11-03
- ▶   **WIP** feat: **Make Clusterization.hpp aware of grid dimensionality** (PR#1634)
by @gagnonlg,  **no assignee**, updated on 2022-11-02
- ▶   **WIP** chore: **Clang-tidy check headers** (PR#1440)
by @paulgessinger,  **no assignee**, updated on 2022-10-31
- ▶   **WIP** feat: **Python documentation** (PR#1633)
by @benjaminhuth,  **no assignee**, updated on 2022-10-28

acts-project/acts: Open PRs IV











- ▶   **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
- ▶   **WIP**  **Stale** fix: **Energy loss function** (PR#1323)
by @beomki-yeo,  **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
- ▶   **WIP**  **Stale** feat!: **Allow regional seeding configuration** (PR#1187)
by @Corentin-Allaire,  **no assignee**, updated on 2022-07-30

acts-project/acts: Issues opened since 2022-11-08 |















- ▶  **error while i running full_chain_odd.py** (Issue#1661)
by @rubihason,  **no assignee**, updated on 2022-11-08

- ▶  **Stale** **Navigator: Resolving surfaces/layers/boundaries with bending tracks** (Issue#1596)
by @benjaminhuth, assigned to @benjaminhuth, updated on 2022-11-12
- ▶  **Stale** **Segfault for ODD+Pythia8+Geant4** (Issue#1578)
by @andiwand,  **no assignee**, 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** **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
















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

- ▶  **Stale** **Navigator: Resolving surfaces/layers/boundaries with bending tracks** (Issue#1596)
by @benjaminhuth, assigned to @benjaminhuth, updated on 2022-11-12
- ▶  **WIP** **Stale** **docs: adding Fatras description** (PR#1402)
by @asalzburger, assigned to @asalzburger, updated on 2022-11-12
- ▶  **Stale** **Segfault for ODD+Pythia8+Geant4** (Issue#1578)
by @andiwand,  **no assignee**, 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















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

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













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

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












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






- ▶  **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
- ▶   **WIP** **Stale** **fix: Energy loss function** (PR#1323)
by @beomki-yeo,  **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

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

- ▶  **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
- ▶  **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

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

- ▶  **Stale** **ci: Coverage job is broken with gcovr \geq 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 globally 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

- ▶  **Stale** **Polyhedron surfaces tests are disabled** (Issue#454)
by @msmk0, assigned to @asalzbürger, updated on 2021-11-04
- ▶  **Stale** **Tracking for TPC/DC without surfaces** (Issue#165)
by @FabianKlimpel, assigned to @asalzbürger, 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 @asalzbürger, assigned to @asalzbürger, updated on 2021-10-21