

## BornAgain - by priority

| #    | Tracker       | Status      | Priority | Subject  | Assignee   | Target version | % Done | Created           | Author        |
|------|---------------|-------------|----------|--|------------|----------------|--------|-------------------|---------------|
| 2478 | Bug           | New         | Normal   | Windows: restore error message when ASSERT fails   |            |                | 0      | 25 Sep 2020 10:57 | wuttke        |
| 2462 | Refactoring   | New         | Normal   | Polarized: Split beam propagation calculations into a computation and measurement step   | rbeerwerth |                | 0      | 03 Jun 2020 11:50 | rbeerwerth    |
| 2477 | Bug           | Sprint      | Urgent   | Core: FF: support rotation of Box around x or y axis   | wuttke     |                | 0      | 22 Sep 2020 14:21 | wuttke        |
| 2402 | Bug           | Sprint      | High     | Core math: Crash on reflectometry "link instrument" for negative values of Q data  |            |                | 0      | 05 Sep 2019 15:41 | juan          |
| 2255 | Bug           | Sprint      | High     | Parameterization: incompatible fit parameters handled badly, cause program crash during fitting  |            |                | 0      | 11 Dec 2018 16:28 | Uliana_Koneva |
| 1990 | Refactoring   | Sprint      | Normal   | Code organisation: Remove duplicate type definitions in BornAgainNamespace.h and item_constants.h  | wuttke     |                | 0      | 28 Feb 2018 14:08 | herck         |
| 1102 | Documentation | Sprint      | Normal   | Core: instrument simulation: review normalization, especially in view of finite sample extension, finite beam width, and small glancing angles | rbeerwerth |                | 0      | 12 Jun 2015 17:51 | wuttke        |
| 1082 | Refactoring   | Sprint      | High     | GUI: provide undo/redo functionality   | pospelov   | v2.0           | 0      | 12 May 2015 16:07 | pospelov      |
| 983  | Documentation | In Progress | High     | Physics manual: add chapter on beam propagation in stratified samples  | wuttke     |                | 0      | 20 Feb 2015 11:24 | wuttke        |
| 330  | Documentation | In Progress | Normal   | Core: beam propagation: take care of $k_z=0$ case appropriately  | rbeerwerth | v1.18          | 0      | 17 Jul 2013 11:19 | herck         |
| 2476 | Refactoring   | Backlog     | Normal   | Fit: catalogize algorithms, not minimizers   |            |                | 0      | 14 Jul 2020 16:45 | wuttke        |
| 2471 | Refactoring   | Backlog     | High     | Core: FF: Revise particle rotation axis (at bottom vs through center)  | wuttke     |                | 0      | 01 Jul 2020 19:09 | wuttke        |
| 2470 | Configuration | Backlog     | Low      | Installer: Windows: link GSL dynamically   |            |                | 0      | 30 Jun 2020 17:12 | wuttke        |
| 2469 | Feature       | Backlog     | Normal   | PythonAPI: make 'result' more pythonic   |            | v2.0           | 0      | 25 Jun 2020 15:47 | wuttke        |
| 2468 | Feature       | Backlog     | Normal   | Units: improve options in PythonAPI  |            | v2.0           | 0      | 25 Jun 2020 15:45 | wuttke        |
| 2467 | Feature       | Backlog     | Normal   | PythonAPI: improve use of keyword arguments; also improve documentation  |            | v2.0           | 0      | 25 Jun 2020 15:43 | wuttke        |
| 2464 | Feature       | Backlog     | Normal   | Artwork (GUI+Doc): provide CantellatedCube (blue 3d view and grey 2d cuts)   |            |                | 0      | 15 Jun 2020 15:03 | wuttke        |
| 2457 | Refactoring   | Backlog     | High     | Code organisation: facilitate sample model API changes   | wuttke     | v.1.19         | 0      | 18 May 2020 14:38 | wuttke        |
| 2436 | Feature       | Backlog     | Normal   | Core API: MultiLayer: redesign to support repetitions.   |            |                | 0      | 06 Apr 2020 11:36 | pospelov      |
| 2433 | Feature       | Backlog     | Normal   | Parameterization: investigate multi-threaded performance in the case of parameter distribution.  |            |                | 0      | 06 Apr 2020 11:00 | pospelov      |
| 2429 | Documentation | Backlog     | Normal   | Website: add Hugo option to mark tutorials with "Available in Release n.nn"  |            |                | 0      | 06 Apr 2020 10:36 | pospelov      |
| 2425 | Feature       | Backlog     | Normal   | Core: add function interpolator, to get steep minima in x-y plots right  | wuttke     |                | 0      | 29 Nov 2019 11:18 | wuttke        |
| 2423 | Feature       | Backlog     | Normal   | Core: add posterior normalization for reflectivity curves  |            |                | 0      | 21 Nov 2019 14:19 | dmitry        |
| 2422 | Feature       | Backlog     | Normal   | Core: add free-form resolution for reflectometry   |            |                | 0      | 21 Nov 2019 13:37 | dmitry        |

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| 2421 | Refactoring   | Backlog | Normal   | Core: instrument: Remove remnants of old-style divergence definition in reflectometry                                     |            |                | 0      | 20 Nov 2019 17:16 | dmitry   |
| 2420 | Feature       | Backlog | Normal   | TO DISCUSS: Switch back to previous 1D (interactive) data loader  |            |                | 0      | 20 Nov 2019 16:41 | dmitry   |
| 2418 | Feature       | Backlog | Normal   | Polarized: support polarized reflectivity in GUI  |            |                | 0      | 20 Nov 2019 13:52 | dmitry   |
| 2417 | Feature       | Backlog | Normal   | Polarized: support z-component of magnetic field  |            |                | 0      | 20 Nov 2019 12:47 | dmitry   |
| 2416 | Bug           | Backlog | Normal   | Polarized: Fix treatment of imperfect analyzers   | rbeerwerth |                | 0      | 20 Nov 2019 11:45 | dmitry   |
| 2415 | Feature       | Backlog | High     | Polarized: validate reflectivity against other software   | rbeerwerth |                | 0      | 20 Nov 2019 10:36 | dmitry   |
| 2414 | Feature       | Backlog | Normal   | Polarized: enable specular signal for polarized GISAS   | rbeerwerth |                | 0      | 20 Nov 2019 10:32 | dmitry   |
| 2411 | Feature       | Backlog | Low      | GUI: Fitting Activity View - a couple of improvements   |            |                | 0      | 31 Oct 2019 09:51 | juan     |
| 2410 | Refactoring   | Backlog | Normal   | Core: beam propagation: Speeding up computations on samples with a large number of layers                                 | rbeerwerth |                | 0      | 21 Oct 2019 10:23 | dmitry   |
| 2409 | Bug           | Backlog | Normal   | GUI: "save image" button from 3D viewer creates psychedelic images  |            |                | 0      | 17 Oct 2019 10:47 | ganeva   |
| 2407 | Feature       | Backlog | Low      | GUI: Add q-space coordinates for Off-Specular simulations results   |            |                | 0      | 25 Sep 2019 09:20 | juan     |
| 2406 | Feature       | Backlog | Normal   | Parameterization: Provide ParticleDistribution with uncoupled parameters  |            |                | 0      | 24 Sep 2019 12:59 | pospelov |
| 2403 | Bug           | Backlog | Normal   | Units: upon GUI import, int.gz file with reflectometry data shows Q units but the ticks correspond to bins                |            |                | 0      | 05 Sep 2019 17:26 | dmitry   |
| 2399 | Documentation | Backlog | Normal   | Example to create: OpenMPI processing   |            |                | 0      | 05 Aug 2019 11:35 | pospelov |
| 2398 | Documentation | Backlog | Normal   | Example to create: for batch processing   |            |                | 0      | 05 Aug 2019 11:34 | pospelov |
| 2397 | Feature       | Backlog | Normal   | Example to create: for superlattice   |            |                | 0      | 02 Aug 2019 16:25 | pospelov |
| 2394 | Feature       | Backlog | Normal   | Core: inter-particle: finite-lattice shape must not be defined in multiples of base vectors                               |            |                | 0      | 31 Jul 2019 16:26 | wuttke   |
| 2393 | Documentation | Backlog | Normal   | Core: inter-particle: improve example: Hexagonal lattices with basis: choose other correlation length, and explain things |            |                | 0      | 31 Jul 2019 15:08 | wuttke   |
| 2391 | Refactoring   | Backlog | Low      | Code organization: Move builder classes out of Core or to dedicated namespace   |            |                | 0      | 31 Jul 2019 12:13 | wuttke   |
| 2390 | Refactoring   | Backlog | Low      | Core: Intensity/ArrayUtils.h: CreateDataImpl: Revise and document   |            |                | 0      | 31 Jul 2019 11:36 | wuttke   |
| 2383 | Feature       | Backlog | Low      | Fit: consider exclusion of masked areas from the data provided by FitObjective  |            |                | 0      | 30 Jul 2019 16:04 | pospelov |
| 2378 | Feature       | Backlog | Low      | Fit: enable new Minuit2 algorithm to Core and GUI   |            |                | 0      | 08 Jul 2019 14:59 | pospelov |
| 2372 | Feature       | Backlog | Normal   | Core: import 2D SANS data   |            |                | 0      | 28 May 2019 18:25 | juan     |
| 2368 | Feature       | Backlog | Low      | GUI: Simulation tab: decouple setup editor from action buttons  |            |                | 0      | 17 May 2019 15:26 | wuttke   |
| 2367 | Feature       | Backlog | Low      | GUI: Sample builder: "Layers" section incorrectly suggests choice between "MultiLayer" and "Layer"                        |            |                | 0      | 17 May 2019 14:55 | wuttke   |
| 2366 | Feature       | Backlog | Low      | GUI: move Import1D/2D buttons to "File" menu  |            |                | 0      | 17 May 2019 14:38 | wuttke   |

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| 2364 | Bug           | Backlog | Low      | GUI: feedback on running background job is out of field of vision   |          |                | 0      | 17 May 2019 14:00 | wuttke   |
| 2363 | Bug           | Backlog | Low      | Units: GUI overrides user choice - specifically, the detector coordinate unit   |          |                | 0      | 17 May 2019 13:52 | wuttke   |
| 2357 | Feature       | Backlog | Urgent   | Units: reflectometry units should be angstroms.   |          |                | 100    | 14 May 2019 11:57 | juan     |
| 2356 | Bug           | Backlog | Normal   | Parameterization: Undefined state in Instrument > Polarization analysis > Analyzer orientation and efficiency                           |          |                | 0      | 13 May 2019 18:33 | wuttke   |
| 2353 | Feature       | Backlog | Low      | GUI: Add "View" to mainwindow menu bar, and replace right-click menu with something context specific.                                   |          |                | 0      | 13 May 2019 13:02 | wuttke   |
| 2350 | Feature       | Backlog | Low      | GUI: Material editor: Start without scroll bars, and automatically center dropped sample models   |          |                | 0      | 13 May 2019 11:16 | wuttke   |
| 2349 | Documentation | Backlog | Normal   | Core: instrument: improve example: Beam divergence: use sample with highly structured GISAS pattern, and show effect of beam divergence |          |                | 0      | 10 May 2019 14:47 | wuttke   |
| 2348 | Bug           | Backlog | Normal   | Example: In python examples, enforce color coding of our choice   |          |                | 0      | 10 May 2019 14:44 | wuttke   |
| 2347 | Bug           | Backlog | Normal   | GUI crashes with masks and 90deg beam inclination   |          |                | 0      | 09 May 2019 17:12 | herck    |
| 2341 | Feature       | Backlog | Low      | GUI: personal material library  |          |                | 0      | 18 Apr 2019 13:53 | ganeva   |
| 2340 | Feature       | Backlog | Normal   | Fit: facilitate switch between minimizers (problem with constraints)  |          |                | 0      | 16 Apr 2019 18:39 | wuttke   |
| 2335 | Feature       | Backlog | Normal   | Fit: Non-obvious way of constructing custom evaluate function for FitObjective  |          |                | 0      | 03 Apr 2019 14:02 | dmitry   |
| 2334 | Feature       | Backlog | Normal   | Installer: Windows: allow users to choose if they want to put BornAgain in the path or not on Windows                                   |          |                | 0      | 03 Apr 2019 13:40 | dmitry   |
| 2327 | Bug           | Backlog | Low      | GUI: cannot delete several experimental datasets at once  |          |                | 0      | 15 Mar 2019 09:50 | dmitry   |
| 2323 | Bug           | Backlog | Normal   | GUI: plots: cannot set a horizontal/vertical projection when switching from color map to projections view                               |          |                | 0      | 12 Mar 2019 15:57 | dmitry   |
| 2320 | Feature       | Backlog | High     | GUI: project back compatibility: save project should save also the Python script  |          |                | 0      | 05 Mar 2019 09:51 | ganeva   |
| 2313 | Feature       | Backlog | Normal   | GUI: adjust step value in spin box for wavelength (instrument view)   |          |                | 0      | 04 Mar 2019 11:52 | dmitry   |
| 2309 | Testing       | Backlog | Normal   | Core: slicing: Provide more test coverage of multilayer slicing machinery   |          |                | 0      | 28 Feb 2019 09:52 | herck    |
| 2300 | Feature       | Backlog | Normal   | PythonAPI: provide beam divergence for OffSpecular simulation   |          |                | 0      | 12 Feb 2019 09:40 | pospelov |
| 2299 | Feature       | Backlog | Normal   | Core: FF: Investigate form factor of a cylinder sector  |          |                | 0      | 11 Feb 2019 10:13 | herck    |
| 2298 | Feature       | Backlog | Normal   | Artwork: provide icon for Hard Disk Percus-Yevick interference function in GUI  |          |                | 0      | 08 Feb 2019 11:27 | herck    |
| 2293 | Feature       | Backlog | Normal   | 3DView: provide mesocrystals in particle distribution   |          |                | 0      | 31 Jan 2019 12:15 | pospelov |
| 2288 | Bug           | Backlog | High     | Core: inter-particle: Remove numerical instability at q=0 for 2d paracrystal  |          |                | 0      | 15 Jan 2019 15:37 | herck    |
| 2284 | Configuration | Backlog | Normal   | Installer: Windows: python error when trying to plot.   |          |                | 0      | 14 Jan 2019 16:19 | juan     |
| 2281 | Feature       | Backlog | Normal   | GUI: provide pan mode for camera in 3D view   |          |                | 0      | 11 Jan 2019 11:26 | pospelov |

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| 2280 | Bug         | Backlog | Normal   | GUI: consecutive import of sample from several python scripts is affected by previous imports                     |          |                | 0      | 11 Jan 2019 10:36 | pospelov      |
| 2279 | Feature     | Backlog | Low      | Core: allow the user to select the contributions to the scattering intensity (diffuse, coherent)                  |          |                | 0      | 11 Jan 2019 10:21 | herck         |
| 2269 | Bug         | Backlog | Normal   | GUI on Windows: import python script fails with anaconda python in path   |          |                | 0      | 21 Dec 2018 11:22 | dmitry        |
| 2266 | Feature     | Backlog | Normal   | GUI: set detector analyzer direction automatically to beam polarization (with the option of changing it manually) |          |                | 0      | 20 Dec 2018 16:56 | herck         |
| 2264 | Feature     | Backlog | Normal   | GUI: property panel of intensity data is too narrow on some systems   |          |                | 0      | 19 Dec 2018 17:54 | pospelov      |
| 2263 | Feature     | Backlog | Normal   | GUI: provide immediate canceling of running job   |          |                | 0      | 19 Dec 2018 17:50 | pospelov      |
| 2261 | Feature     | Backlog | Low      | GUI: WelcomeView: Provide tooltip for project file name   |          |                | 0      | 19 Dec 2018 08:22 | pospelov      |
| 2254 | Feature     | Backlog | High     | Units: Proposal about uniform units of measurement  |          |                | 0      | 10 Dec 2018 17:29 | Uliana_Koneva |
| 2253 | Bug         | Backlog | Low      | GUI: The "Fit parameters" window is incorrectly displayed   |          |                | 0      | 10 Dec 2018 16:57 | Uliana_Koneva |
| 2251 | Bug         | Backlog | Low      | GUI: plots: The ordinate (y) scale of graph "Iteration" incorrect display.  |          |                | 0      | 10 Dec 2018 15:27 | Uliana_Koneva |
| 2248 | Bug         | Backlog | Low      | GUI: Material editor: problems on windows   |          |                | 0      | 07 Dec 2018 12:50 | dmitry        |
| 2244 | Feature     | Backlog | Low      | PythonAPI: support DepthProbeInstrument (currently GUI only)  |          |                | 0      | 06 Dec 2018 10:55 | pospelov      |
| 2242 | Refactoring | Backlog | Normal   | Parameterization: Provide common interface of handling mean/center/median value in distributions                  |          |                | 0      | 05 Dec 2018 13:45 | dmitry        |
| 2241 | Refactoring | Backlog | Normal   | GUI: Replace DoubleEditor and ScientificDoublePropertyEditor with ScientificSpinBox                               |          |                | 0      | 05 Dec 2018 13:23 | dmitry        |
| 2240 | Refactoring | Backlog | Normal   | GUI: InstrumentItem: refactor unit convertor construction   |          |                | 0      | 03 Dec 2018 14:12 | pospelov      |
| 2238 | Feature     | Backlog | Low      | GUI: Import tab: Get rid of "Linked_instrument"   |          |                | 0      | 30 Nov 2018 19:40 | dmitry        |
| 2234 | Refactoring | Backlog | Normal   | Fit: Simplify minimizer constructor   |          |                | 0      | 29 Nov 2018 09:59 | pospelov      |
| 2232 | Feature     | Backlog | Normal   | GUI: provide units in tooltips  |          |                | 0      | 23 Nov 2018 13:31 | ganeva        |
| 2230 | Bug         | Backlog | Normal   | GUI on Cinnamon: Window control buttons are missed  |          |                | 0      | 19 Nov 2018 14:21 | ganeva        |
| 2227 | Feature     | Backlog | Normal   | GUI highdpi: fix Windows scaling issues   |          |                | 0      | 16 Nov 2018 12:50 | pospelov      |
| 2226 | Feature     | Backlog | Normal   | GUI highdpi: provide common access to scale factor  |          |                | 0      | 16 Nov 2018 12:50 | pospelov      |
| 2221 | Refactoring | Backlog | Low      | Installer: Windows: get libraries from Nuget?   |          |                | 0      | 13 Nov 2018 17:35 | pospelov      |
| 2215 | Feature     | Backlog | Low      | Core: inter-particle: implement other variant for 2d lattice interference function                                |          |                | 0      | 06 Nov 2018 09:48 | herck         |
| 2211 | Refactoring | Backlog | Low      | GUI: Fit view: Refactor fit progress/fit comparison widgets   |          |                | 0      | 26 Oct 2018 12:41 | pospelov      |
| 2209 | Feature     | Backlog | Normal   | Example to create: Fit using bumps minimizer  |          |                | 0      | 24 Oct 2018 17:47 | pospelov      |
| 2206 | Feature     | Backlog | Low      | GUI: restore broken drag-and-drop in the ItemTreeView   |          |                | 0      | 18 Oct 2018 15:48 | pospelov      |
| 2205 | Feature     | Backlog | Low      | Fit: Replace difference plot in fitobserver with the true metric used for minimization                            |          |                | 0      | 18 Oct 2018 13:47 | herck         |

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| 2204 | Feature       | Backlog | Normal   | GUI highdpi: switch mainwindow to highdpi mode on Linux by default                                      |            |                | 0      | 18 Oct 2018 13:39 | pospelov      |
| 2203 | Feature       | Backlog | Normal   | GUI highdpi: refactor FancyTabWidget to account for high dpi monitors                                   |            |                | 0      | 18 Oct 2018 13:35 | pospelov      |
| 2202 | Feature       | Backlog | Normal   | GUI highdpi: replace remaining png icons with their svg versions  |            |                | 0      | 18 Oct 2018 13:34 | pospelov      |
| 2197 | Feature       | Backlog | Normal   | 3DView: provide default selection of MultiLayer on 3DView open  |            |                | 0      | 12 Oct 2018 16:39 | pospelov      |
| 2191 | Feature       | Backlog | Normal   | Example to create: Lamellar structure   |            |                | 0      | 08 Oct 2018 11:14 | pospelov      |
| 2185 | Documentation | Backlog | Normal   | Installer: MacOS: Explain peculiarities of matplotlib usage   |            |                | 0      | 04 Oct 2018 11:45 | pospelov      |
| 2180 | Bug           | Backlog | Normal   | GUI autosave: always use local folder for autosave functionality (also when project lives in the cloud) |            |                | 0      | 02 Oct 2018 13:34 | Uliana_Koneva |
| 2164 | Feature       | Backlog | Low      | Core: import: support edf format for scattering data  |            |                | 0      | 20 Sep 2018 15:06 | herck         |
| 2160 | Feature       | Backlog | Low      | GUI: consider mask editor to be invoked from instrument view  |            |                | 0      | 19 Sep 2018 16:06 | pospelov      |
| 2159 | Feature       | Backlog | Normal   | 3DView: improve appearance when particle size is large  |            |                | 0      | 19 Sep 2018 15:11 | pospelov      |
| 2157 | Feature       | Backlog | Normal   | Example to create: silver behenate standard sample  |            |                | 0      | 19 Sep 2018 13:35 | pospelov      |
| 2133 | Testing       | Backlog | Normal   | Core: slicing: ensure functional test coverage of sliced particles                                      |            |                | 0      | 31 Jul 2018 13:22 | herck         |
| 2130 | Refactoring   | Backlog | Normal   | Core API: Reduce the number of possible ways to access data through SimulationResult                    |            |                | 0      | 30 Jul 2018 16:42 | dmitry        |
| 2120 | Refactoring   | Backlog | Low      | Core: inter-particle: Let decay functions calculate the minimum and maximum values of q to use          |            |                | 0      | 24 Jul 2018 12:19 | herck         |
| 2115 | Feature       | Backlog | Normal   | Code dependencies: replace boost::filesystem by C++17 std::   |            |                | 0      | 12 Jul 2018 11:30 | pospelov      |
| 2114 | Feature       | Backlog | Normal   | Code dependencies: get rid of boost::iostreams  |            |                | 0      | 12 Jul 2018 11:29 | pospelov      |
| 2112 | Feature       | Backlog | Normal   | Code dependencies: get rid of boost::program_options  |            |                | 0      | 12 Jul 2018 11:29 | pospelov      |
| 2109 | Refactoring   | Backlog | Low      | GUI: plots: refactor 1D and 2D plotting   |            |                | 0      | 12 Jul 2018 09:57 | pospelov      |
| 2099 | Bug           | Backlog | Normal   | GUI: relative difference item in fit comparison requires revision                                       |            |                | 0      | 22 Jun 2018 12:55 | dmitry        |
| 2094 | Feature       | Backlog | Normal   | Polarized: allow magnetic scattering for all IComputations  | rbeerwerth |                | 0      | 20 Jun 2018 11:54 | herck         |
| 2093 | Refactoring   | Backlog | Normal   | GUI: plots: create prototype of universal 1D, 2D plot machinery   |            |                | 0      | 20 Jun 2018 09:26 | pospelov      |
| 2090 | Bug           | Backlog | Low      | GUI: Fitting history is wiped out after switching to another view and back                              |            |                | 0      | 15 Jun 2018 19:41 | dmitry        |
| 2087 | Documentation | Backlog | Normal   | Website: provide "description" and "keywords" meta information  |            |                | 0      | 14 Jun 2018 17:35 | pospelov      |
| 2086 | Feature       | Backlog | Normal   | GUI: introduce extended distribution editor for ParticleDistributionItem                                |            |                | 0      | 14 Jun 2018 14:25 | pospelov      |
| 2085 | Feature       | Backlog | Normal   | 3DView: move time consuming operations in a thread  |            |                | 0      | 14 Jun 2018 14:24 | pospelov      |
| 2072 | Documentation | Backlog | Low      | Artwork: provide favicon for new website  |            |                | 0      | 12 Jun 2018 16:11 | pospelov      |
| 2067 | Feature       | Backlog | Normal   | Python utils: enhance functionality for reflectometry plotting  |            |                | 0      | 03 Jun 2018 23:57 | dmitry        |
| 2066 | Feature       | Backlog | Normal   | Installer: MacOS: cleanup dmg installer from unnecessary Qt libraries                                   |            |                | 0      | 30 May 2018 17:53 | pospelov      |
| 2064 | Bug           | Backlog | Low      | GUI: plots: weird behaviour when equalizing plots   |            |                | 0      | 29 May 2018 14:24 | dmitry        |
| 2058 | Feature       | Backlog | Normal   | Core: compute Poisson error estimate for experimental real data   |            |                | 0      | 24 May 2018 17:17 | dmitry        |

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| 2056 | Feature       | Backlog | Low      | GUI: Restore MaterialPropertyController  |          |                | 0      | 24 May 2018 12:41 | pospelov |
| 2050 | Refactoring   | Backlog | Normal   | GUI: SessionModel::copyItem: remove dependence on XML serialization  |          |                | 0      | 14 May 2018 18:24 | herck    |
| 2037 | Bug           | Backlog | High     | Fit: Unrealistically high error estimate (while fitting specular signal)   |          |                | 0      | 16 Apr 2018 12:41 | dmitry   |
| 2025 | Bug           | Backlog | High     | Core: slicing: makes mesocrystal simulation very slow  |          |                | 0      | 03 Apr 2018 16:48 | pospelov |
| 2020 | Testing       | Backlog | Low      | Test: add functional test of reproducibility of simulation runs  |          |                | 0      | 21 Mar 2018 13:57 | dmitry   |
| 2013 | Documentation | Backlog | Normal   | Example to create: project file with 'real' data and web tutorial using this                                       |          |                | 0      | 16 Mar 2018 10:11 | herck    |
| 2011 | Refactoring   | Backlog | Normal   | PythonAPI: improve access to the simulation results  |          |                | 0      | 14 Mar 2018 17:44 | ganeva   |
| 2000 | Feature       | Backlog | Normal   | CMake: Linux installation: use rpath for our own binaries  |          |                | 0      | 07 Mar 2018 13:16 | pospelov |
| 1996 | Feature       | Backlog | Low      | GUI: About: print build time   |          |                | 0      | 02 Mar 2018 11:16 | pospelov |
| 1994 | Feature       | Backlog | Normal   | Units: Enable automatic conversion of parameter values/limits between GUI and Core (enabling angle fit parameters) |          |                | 0      | 01 Mar 2018 16:12 | herck    |
| 1992 | Feature       | Backlog | Low      | GUI: RealTimeView: revise  |          |                | 0      | 28 Feb 2018 16:18 | pospelov |
| 1988 | Feature       | Backlog | Normal   | Fit: Propagate best fit parameter values to parameter tree and fit parameter list                                  |          |                | 0      | 28 Feb 2018 11:53 | herck    |
| 1984 | Bug           | Backlog | Normal   | GUI: collaps/expand arrows on InstrumentView are too big on Mac  |          |                | 0      | 27 Feb 2018 12:19 | pospelov |
| 1972 | Feature       | Backlog | Normal   | GUI: provide beam divergence for OffSpec instrument  |          |                | 0      | 21 Feb 2018 11:30 | pospelov |
| 1971 | Documentation | Backlog | Normal   | Fit: Provide description of fitting engines' options   |          |                | 0      | 21 Feb 2018 11:26 | dmitry   |
| 1928 | Feature       | Backlog | Low      | GUI: SpecularSimulation: progress counter broken   |          |                | 0      | 22 Dec 2017 14:22 | dmitry   |
| 1927 | Feature       | Backlog | Normal   | Core: inter-particle: InterferenceFunction2DParaCrystal::interference1D is slow                                    |          |                | 0      | 18 Dec 2017 14:58 | pospelov |
| 1918 | Refactoring   | Backlog | Normal   | Core API: review IHistogram class family   |          |                | 0      | 06 Dec 2017 09:55 | dmitry   |
| 1893 | Refactoring   | Backlog | Low      | GUI: provide uniform splitters where possible  |          |                | 0      | 14 Nov 2017 11:43 | pospelov |
| 1864 | Feature       | Backlog | Normal   | GUI: About: provide option to export citation  |          |                | 0      | 20 Oct 2017 11:58 | ganeva   |
| 1847 | Refactoring   | Backlog | Normal   | Test: let IFactory support variadic constructor parameters   |          |                | 0      | 29 Sep 2017 16:30 | pospelov |
| 1817 | Feature       | Backlog | Normal   | GUI: provide an easy way of importing instrument definitions and real data into the GUI                            |          |                | 0      | 12 Jun 2017 14:57 | herck    |
| 1781 | Bug           | Backlog | High     | Installer: Linux: Fix thisbornagain.sh to correctly drop from path previous BornAgain installation.                |          |                | 0      | 22 Mar 2017 14:59 | pospelov |
| 1775 | Refactoring   | Backlog | Normal   | Parameterization: Check pyramid like shapes for angles > 90 degrees  |          |                | 0      | 08 Mar 2017 14:13 | herck    |
| 1773 | Feature       | Backlog | Low      | GUI: implement a ruler for ProjectionsEditor   |          |                | 0      | 24 Feb 2017 14:33 | pospelov |
| 1766 | Refactoring   | Backlog | Normal   | Core: FF: Replace all form factors in sample creation by shapes  | wuttke   |                | 0      | 16 Feb 2017 13:58 | herck    |
| 1755 | Feature       | Backlog | Low      | GUI: provide additional command line parameter to open existing projects   |          |                | 0      | 19 Jan 2017 12:32 | pospelov |
| 1754 | Feature       | Backlog | Normal   | Fit: investigate log-likelihood, Poisson statistics  |          |                | 0      | 19 Jan 2017 12:30 | pospelov |

| #    | Tracker       | Status  | Priority | Subject  | Assignee | Target version | % Done | Created           | Author   |
|------|---------------|---------|----------|--|----------|----------------|--------|-------------------|----------|
| 1751 | Feature       | Backlog | Normal   | CMake: warn if there are remnants of other BornAgain installation  |          |                | 0      | 19 Jan 2017 10:53 | pospelov |
| 1718 | Configuration | Backlog | Low      | Installer: Windows: Provide alternative installer with debug symbols   |          |                | 0      | 02 Dec 2016 15:15 | pospelov |
| 1715 | Feature       | Backlog | Normal   | Core API: start sample construction with SlabSample() or FilmSample()  |          |                | 0      | 02 Dec 2016 14:02 | wuttke   |
| 1704 | Feature       | Backlog | Low      | Fit: Revise chi squared module   |          |                | 0      | 01 Dec 2016 14:38 | wuttke   |
| 1698 | Feature       | Backlog | Normal   | GUI: save/load detector mask   |          |                | 0      | 01 Dec 2016 14:07 | wuttke   |
| 1685 | Refactoring   | Backlog | Normal   | PythonAPI: Only expose classes/functions that users might need   |          |                | 0      | 28 Nov 2016 14:31 | wuttke   |
| 1677 | Feature       | Backlog | High     | Core: roughness: Independent roughness cross-correlation for disjoint sets of interfaces   |          |                | 0      | 25 Nov 2016 11:33 | ganeva   |
| 1666 | Feature       | Backlog | Normal   | PythonAPI: Constructor of Histogram2D should accept also numpy arrays with dtype=int   |          |                | 0      | 24 Nov 2016 09:57 | ganeva   |
| 1615 | Configuration | Backlog | Low      | Code organisation: in each third-party source directory, provide information about used download location, download date, and downloaded version |          |                | 0      | 13 Oct 2016 14:13 | wuttke   |
| 1612 | Feature       | Backlog | High     | Core: beam propagation: add forward scattering amplitudes to specular amplitude  |          |                | 0      | 06 Oct 2016 11:26 | herck    |
| 1578 | Refactoring   | Backlog | Low      | Core: FF: reimplement ripples as Cartesian product Profile * Decay   |          |                | 0      | 08 Aug 2016 16:01 | wuttke   |
| 1569 | Refactoring   | Backlog | Normal   | Core: FF: API: rename hard particle form factors   |          |                | 0      | 03 Aug 2016 13:53 | wuttke   |
| 1568 | Feature       | Backlog | Low      | Core: FF: Implement TruncatedEllipsoid to replace HemiEllipsoid  | wuttke   |                | 0      | 03 Aug 2016 13:25 | wuttke   |
| 1507 | Feature       | Backlog | Low      | GUI: Sample builder & editor: SHIFT+LeftClick should add to selection  |          |                | 0      | 12 Jul 2016 11:34 | wuttke   |
| 1506 | Feature       | Backlog | Low      | GUI Sample Tree View: cut / paste or move to be added to right-click popup menu  |          |                | 0      | 12 Jul 2016 10:14 | wuttke   |
| 1504 | Feature       | Backlog | Low      | GUI: support standard control keys   |          |                | 0      | 12 Jul 2016 09:30 | wuttke   |
| 1495 | Refactoring   | Backlog | Normal   | GUI: extend GUIsuite functional test machinery with standard fits  |          |                | 0      | 01 Jul 2016 13:50 | pospelov |
| 1494 | Refactoring   | Backlog | Normal   | GUI: Implement export of fitting setup to python script.   |          |                | 0      | 01 Jul 2016 13:50 | pospelov |
| 1493 | Refactoring   | Backlog | Normal   | GUI: Implement tranform from domain for fitting objects  |          |                | 0      | 01 Jul 2016 13:50 | pospelov |
| 1468 | Refactoring   | Backlog | Low      | Code organization: Migrate to stdexcept  |          |                | 0      | 16 Jun 2016 10:17 | wuttke   |
| 1416 | Bug           | Backlog | Normal   | Core: FF: form factors with numeric integration fail for small and for large q   |          |                | 0      | 25 Apr 2016 09:09 | wuttke   |
| 1415 | Feature       | Backlog | Low      | Parameterization: onChange() should invalidate cache, and not immediately execute precompute()   |          |                | 0      | 22 Apr 2016 09:17 | wuttke   |
| 1229 | Feature       | Backlog | Normal   | Installer: MacOS: create BornAgain "tap" and "formula" for Homebrew  |          |                | 0      | 02 Nov 2015 16:54 | pospelov |
| 1214 | Feature       | Backlog | Normal   | Core: roughness: add real-space visualization  |          |                | 0      | 19 Oct 2015 13:03 | pospelov |
| 1175 | Configuration | Backlog | Normal   | Installer: Linux: Provide official debian package  |          |                | 0      | 03 Sep 2015 09:59 | ganeva   |
| 1141 | Documentation | Backlog | High     | Manual: describe multi layers  |          |                | 30     | 20 Jul 2015 09:24 | pospelov |
| 1068 | Feature       | Backlog | Normal   | GUI: provide SLD profile view  |          |                | 100    | 08 May 2015 19:55 | a.glavic |

| #    | Tracker       | Status         | Priority | Subject   | Assignee | Target version | % Done | Created           | Author   |
|------|---------------|----------------|----------|---|----------|----------------|--------|-------------------|----------|
| 1060 | Refactoring   | Backlog        | Normal   | Core: refactor SSCA according to manual   |          |                | 0      | 29 Apr 2015 17:33 | wuttke   |
| 1014 | Documentation | Backlog        | Normal   | Parameterization: document simulation with distributed parameters                       |          |                | 0      | 19 Mar 2015 10:00 | pospelov |
| 981  | Feature       | Backlog        | Low      | GUI: Real-time activity: update refractive index when varying wavelength                |          |                | 0      | 19 Feb 2015 17:46 | ganeva   |
| 907  | Feature       | Backlog        | Normal   | Example to create: MesoCrystal tutorial   |          |                | 0      | 27 Nov 2014 15:59 | pospelov |
| 697  | Feature       | Backlog        | Normal   | Core: support Monte Carlo integration over all incoherent parameters                    |          |                | 0      | 04 Jun 2014 12:44 | herck    |
| 409  | Refactoring   | Backlog        | Normal   | Core: remove duplicate functions "evaluate" and "evaluatePol"                           |          |                | 0      | 25 Sep 2013 11:12 | herck    |
| 31   | Feature       | Backlog        | Low      | Core: beam propagation: Implement x-ray polarization factor                             |          |                | 0      | 23 May 2012 12:57 | herck    |
| 12   | Feature       | Backlog        | Normal   | Core: SLD: Calculation of refractive index for x-rays and neutrons from database        |          |                | 0      | 18 Apr 2012 11:25 | pospelov |
| 2376 | Refactoring   | Long Term Idea | Normal   | Fit: Look for an alternative to root minimizers   |          |                | 0      | 05 Jun 2019 13:14 | dmitry   |
| 2360 | Feature       | Long Term Idea | Low      | 3DView: Provide button to save video  |          |                | 0      | 14 May 2019 17:19 | juan     |
| 2274 | Feature       | Long Term Idea | Low      | Code organisation: investigate Swig replacement   |          |                | 0      | 09 Jan 2019 11:34 | pospelov |
| 1805 | Feature       | Long Term Idea | Low      | Code dependencies: investigate usage of Python packages from C++ (fabio, periodictable) |          |                | 0      | 11 May 2017 11:53 | pospelov |
| 1722 | Feature       | Long Term Idea | Normal   | Core: Beyond DWBA: self-absorption correction   |          |                | 0      | 05 Dec 2016 09:33 | wuttke   |
| 1540 | Feature       | Long Term Idea | Normal   | Core: support incoherent z-distribution of particles inside layer                       |          |                | 0      | 27 Jul 2016 17:51 | herck    |
| 1032 | Feature       | Long Term Idea | Normal   | Core: Rotation of inter-particle structures   |          |                | 0      | 07 Apr 2015 23:29 | a.glavic |
| 587  | Feature       | Long Term Idea | Low      | Fit: investigate objective function alternatives  |          |                | 0      | 11 Feb 2014 10:11 | pospelov |