

## BornAgain - by priority

| #    | Tracker       | Status  | Priority | Subject   | Assignee   | Target version | Author     | Updated           |
|------|---------------|---------|----------|---|------------|----------------|------------|-------------------|
| 2516 | Refactoring   | New     | Normal   | Core: FF: API: forbid unphysical rotations  |            |                | wuttke     | 16 Jan 2021 21:50 |
| 2515 | Feature       | New     | Normal   | Fit: reimplement Scipy.DE in C++  |            |                | wuttke     | 18 Dec 2020 17:36 |
| 2514 | Documentation | New     | Normal   | Webdocs: rem to px conversion fails under Chromium  |            |                | wuttke     | 11 Dec 2020 15:51 |
| 2513 | Bug           | New     | Normal   | Numerics: Restore Interference2DParaCrystal.py under Windows (GSL Gauss-Kronrod fails)                                |            |                | wuttke     | 08 Dec 2020 16:40 |
| 2512 | Documentation | Sprint  | Urgent   | Webdocs: Restore preview images   |            |                | wuttke     | 08 Dec 2020 16:40 |
| 2509 | Configuration | New     | Normal   | Update 3rd-party code from ROOT   |            |                | wuttke     | 14 Dec 2020 12:35 |
| 2508 | Bug           | Sprint  | Normal   | use of map(Q->R) in reflectometry input precludes duplicate Q entries   |            |                | wuttke     | 02 Dec 2020 22:07 |
| 2506 | Refactoring   | New     | High     | Core API: counterintuitive order of arguments in c'tor ParticleCoreShell(const Particle& shell, const Particle& core) |            |                | wuttke     | 28 Nov 2020 17:37 |
| 2504 | Bug           | New     | Normal   | GUI: Mouse cursor shape stays "left-right arrow" after sliding over splitter  |            |                | mpuchner   | 27 Nov 2020 12:05 |
| 2501 | Bug           | New     | Normal   | GUI: The "more commands" button on too narrow toolbars is not working   |            |                | mpuchner   | 27 Nov 2020 11:44 |
| 2500 | Feature       | Sprint  | Normal   | GUI: After inserting multiple items to the sample editor they should all be selected                                  |            |                | mpuchner   | 15 Dec 2020 08:47 |
| 2497 | Bug           | New     | Normal   | Sample: Material profile support for Nevot-Croce/Gaussian Roughness   |            |                | rbeerwerth | 27 Nov 2020 10:33 |
| 2494 | Refactoring   | New     | High     | PythonAPI: rename or wrap kvector_t, or accept Python list in its place   |            |                | wuttke     | 24 Nov 2020 17:16 |
| 2492 | Refactoring   | New     | Normal   | Core: make Lattice2D and Lattice3D APIs more similar  |            |                | wuttke     | 23 Nov 2020 22:24 |
| 2491 | Refactoring   | New     | Normal   | Core: simplify ZLimits  |            |                | wuttke     | 23 Nov 2020 22:22 |
| 2490 | Documentation | New     | Normal   | Example to create: SAS  |            |                | wuttke     | 23 Nov 2020 22:21 |
| 2489 | Bug           | New     | Normal   | CI: examples that create more than one image are not covered by update mechanism                                      |            |                | wuttke     | 23 Nov 2020 17:00 |
| 2488 | Refactoring   | New     | High     | PolarizedSpinAsymmetryFit.py: don't save to pdf   | rbeerwerth |                | wuttke     | 30 Nov 2020 11:04 |
| 2487 | Configuration | Waiting | Low      | Code organisation: depend on external qcustomplot, rm from ThirdParty (WAITING for homebrew)                          |            |                | wuttke     | 01 Dec 2020 22:18 |
| 2486 | Bug           | New     | Normal   | GUI: update, or remove, splash screen as claim "making DWBA manageable" is too GISAS specific                         |            |                | wuttke     | 23 Nov 2020 17:11 |
| 2485 | Refactoring   | New     | Normal   | Code orgnization: unify random number generators  |            |                | wuttke     | 23 Nov 2020 17:11 |
| 2484 | Bug           | New     | Normal   | Core: unify footprint correction  |            |                | wuttke     | 02 Nov 2020 20:32 |
| 2482 | Refactoring   | Sprint  | High     | ThirdParty: qt-manhattan-style REMOVE   |            |                | wuttke     | 01 Dec 2020 22:31 |
| 2481 | Refactoring   | New     | High     | Core: unify SimulationElement and SpecularSimulationElement   |            |                | wuttke     | 02 Nov 2020 13:48 |
| 2480 | Configuration | New     | Normal   | CI: automatic tests of fitting examples   |            |                | wuttke     | 28 Oct 2020 14:22 |
| 2479 | Refactoring   | New     | Normal   | GUI: unify warnings   |            |                | wuttke     | 28 Oct 2020 09:12 |
| 2478 | Bug           | New     | Normal   | Windows: restore error message when ASSERT fails  |            |                | wuttke     | 25 Sep 2020 10:57 |

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| 2477 | Bug           | Backlog | High     | Core: FF: support rotation of Box around x or y axis   | wuttke     |                | wuttke     | 01 Dec 2020 22:21 |
| 2476 | Refactoring   | Backlog | Normal   | Fit: catalogize algorithms, not minimizers   |            |                | wuttke     | 19 Sep 2020 10:13 |
| 2471 | Refactoring   | Backlog | High     | Core: FF: Revise particle rotation axis (at bottom vs through center)                                      | wuttke     |                | wuttke     | 18 Sep 2020 20:19 |
| 2470 | Configuration | Waiting | Low      | Installer: Windows: link GSL dynamically   |            |                | wuttke     | 02 Nov 2020 13:49 |
| 2469 | Feature       | Backlog | Normal   | PythonAPI: make 'result' more pythonic   |            | v2.0           | wuttke     | 18 Sep 2020 19:47 |
| 2468 | Feature       | Backlog | Normal   | Units: improve options in PythonAPI  |            | v2.0           | wuttke     | 19 Sep 2020 09:43 |
| 2467 | Feature       | Backlog | Normal   | PythonAPI: improve use of keyword arguments; also improve documentation                                    |            | v2.0           | wuttke     | 18 Sep 2020 19:51 |
| 2464 | Feature       | Backlog | Normal   | Artwork (GUI+Doc): provide CantellatedCube (blue 3d view and grey 2d cuts)                                 |            |                | wuttke     | 18 Sep 2020 19:24 |
| 2462 | Refactoring   | New     | Normal   | Polarized: Split beam propagation calculations into a computation and measurement step                     | rbeerwerth |                | rbeerwerth | 28 Sep 2020 11:19 |
| 2436 | Feature       | Backlog | Normal   | Core API: MultiLayer: redesign to support repetitions.   |            |                | pospelov   | 18 Sep 2020 23:29 |
| 2433 | Feature       | Backlog | Normal   | Parameterization: investigate multi-threaded performance in the case of parameter distribution.            |            |                | pospelov   | 18 Sep 2020 23:12 |
| 2429 | Documentation | Backlog | Normal   | Website: add Hugo option to mark tutorials with "Available in Release n.nn"                                |            |                | pospelov   | 17 Jun 2020 12:57 |
| 2425 | Feature       | Backlog | Normal   | Core: add function interpolator, to get steep minima in x-y plots right                                    | wuttke     |                | wuttke     | 18 Sep 2020 18:44 |
| 2422 | Feature       | Backlog | Normal   | Core: add free-form resolution for reflectometry   |            |                | dmitry     | 18 Sep 2020 23:49 |
| 2421 | Refactoring   | Backlog | Normal   | Core: instrument: Remove remnants of old-style divergence definition in reflectometry                      |            |                | dmitry     | 18 Sep 2020 21:54 |
| 2420 | Feature       | Backlog | Normal   | TO DISCUSS: Switch back to previous 1D (interactive) data loader   |            |                | dmitry     | 18 Sep 2020 20:01 |
| 2418 | Feature       | Backlog | Normal   | Polarized: support polarized reflectivity in GUI   |            |                | dmitry     | 19 Sep 2020 09:09 |
| 2417 | Feature       | Backlog | Normal   | Polarized: support z-component of magnetic field   |            |                | dmitry     | 19 Sep 2020 09:08 |
| 2415 | Feature       | Backlog | High     | Polarized: validate reflectivity against other software  | rbeerwerth |                | dmitry     | 19 Sep 2020 09:08 |
| 2414 | Feature       | Backlog | Normal   | Polarized: enable specular signal for polarized GISAS  | rbeerwerth |                | dmitry     | 28 Sep 2020 11:25 |
| 2411 | Feature       | Backlog | Low      | GUI: Fitting Activity View - a couple of improvements  |            |                | juan       | 18 Sep 2020 15:26 |
| 2410 | Refactoring   | Backlog | Normal   | Core: beam propagation: Speeding up computations on samples with a large number of layers                  | rbeerwerth |                | dmitry     | 28 Sep 2020 11:23 |
| 2409 | Bug           | Backlog | Normal   | GUI: "save image" button from 3D viewer creates psychedelic images   |            |                | ganeva     | 17 Jun 2020 12:57 |
| 2407 | Feature       | Backlog | Low      | GUI: Add q-space coordinates for Off-Specular simulations results  |            |                | juan       | 18 Sep 2020 15:26 |
| 2406 | Feature       | Backlog | Normal   | Parameterization: Provide ParticleDistribution with uncoupled parameters                                   |            |                | pospelov   | 18 Sep 2020 22:36 |
| 2403 | Bug           | Backlog | Normal   | Units: upon GUI import, int.gz file with reflectometry data shows Q units but the ticks correspond to bins |            |                | dmitry     | 19 Sep 2020 09:44 |
| 2402 | Bug           | Sprint  | High     | Core math: Crash on reflectometry "link instrument" for negative values of Q data                          |            |                | juan       | 18 Sep 2020 15:28 |
| 2399 | Documentation | Backlog | Normal   | Example to create: OpenMPI processing  |            |                | pospelov   | 18 Sep 2020 15:58 |
| 2398 | Documentation | Backlog | Normal   | Example to create: for batch processing  |            |                | pospelov   | 18 Sep 2020 15:58 |

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| 2397 | Feature       | Backlog        | Normal   | Example to create: for superlattice   |          |                | pospelov | 18 Sep 2020 15:58 |
| 2394 | Feature       | Backlog        | Normal   | Core: inter-particle: finite-lattice shape must not be defined in multiples of base vectors   |          |                | wuttke   | 19 Sep 2020 10:13 |
| 2393 | Documentation | Backlog        | Normal   | Core: inter-particle: improve example: Hexagonal lattices with basis: choose other correlation length, and explain things               |          |                | wuttke   | 19 Sep 2020 10:20 |
| 2390 | Refactoring   | Backlog        | Low      | Core: Intensity/ArrayUtils.h: CreateDataImpl: Revise and document   |          |                | wuttke   | 18 Sep 2020 19:40 |
| 2383 | Feature       | Backlog        | Low      | Fit: consider exclusion of masked areas from the data provided by FitObjective  |          |                | pospelov | 18 Sep 2020 23:42 |
| 2378 | Feature       | Backlog        | Low      | Fit: enable new Minuit2 algorithm to Core and GUI   |          |                | pospelov | 18 Sep 2020 23:26 |
| 2376 | Refactoring   | Long Term Idea | Normal   | Fit: Look for an alternative to root minimizers   |          |                | dmitry   | 18 Sep 2020 23:01 |
| 2372 | Feature       | Backlog        | Normal   | Core: import 2D SANS data   |          |                | juan     | 18 Sep 2020 22:53 |
| 2368 | Feature       | Backlog        | Low      | GUI: Simulation tab: decouple setup editor from action buttons  |          |                | wuttke   | 18 Sep 2020 15:29 |
| 2367 | Feature       | Backlog        | Low      | GUI: Sample builder: "Layers" section incorrectly suggests choice between "MultiLayer" and "Layer"                                      |          |                | wuttke   | 18 Sep 2020 18:54 |
| 2366 | Feature       | Backlog        | Low      | GUI: move Import1D/2D buttons to "File" menu  |          |                | wuttke   | 18 Sep 2020 15:49 |
| 2364 | Bug           | Backlog        | Low      | GUI: feedback on running background job is out of field of vision   |          |                | wuttke   | 18 Sep 2020 15:50 |
| 2363 | Bug           | Backlog        | Low      | Units: GUI overrides user choice - specifically, the detector coordinate unit   |          |                | wuttke   | 19 Sep 2020 09:42 |
| 2360 | Feature       | Long Term Idea | Low      | 3DView: Provide button to save video  |          |                | juan     | 18 Sep 2020 16:05 |
| 2357 | Feature       | Backlog        | High     | Units: reflectometry units should be angstroms.   |          |                | juan     | 01 Dec 2020 22:22 |
| 2356 | Bug           | Backlog        | Normal   | Parameterization: Undefined state in Instrument > Polarization analysis > Analyzer orientation and efficiency                           |          |                | wuttke   | 18 Sep 2020 19:29 |
| 2353 | Feature       | Backlog        | Low      | GUI: Add "View" to mainwindow menu bar, and replace right-click menu with something context specific.                                   |          |                | wuttke   | 16 Dec 2020 16:05 |
| 2350 | Feature       | Backlog        | Low      | GUI: Material editor: Start without scroll bars, and automatically center dropped sample models   |          |                | wuttke   | 18 Sep 2020 18:31 |
| 2349 | Documentation | Backlog        | Normal   | Core: instrument: improve example: Beam divergence: use sample with highly structured GISAS pattern, and show effect of beam divergence |          |                | wuttke   | 19 Sep 2020 10:21 |
| 2347 | Bug           | Backlog        | Normal   | GUI crashes with masks and 90deg beam inclination   |          |                | herck    | 30 Jul 2019 16:29 |
| 2341 | Feature       | Backlog        | Low      | GUI: personal material library  |          |                | ganeva   | 18 Sep 2020 15:51 |
| 2340 | Feature       | Backlog        | Normal   | Fit: facilitate switch between minimizers (problem with constraints)  |          |                | wuttke   | 18 Sep 2020 18:52 |
| 2335 | Feature       | Backlog        | Normal   | Fit: Non-obvious way of constructing custom evaluate function for FitObjective  |          |                | dmitry   | 18 Sep 2020 22:53 |
| 2334 | Feature       | Backlog        | Normal   | Installer: Windows: allow users to choose if they want to put BornAgain in the path or not on Windows                                   |          |                | dmitry   | 18 Sep 2020 23:47 |
| 2327 | Bug           | Backlog        | Low      | GUI: cannot delete several experimental datasets at once  |          |                | dmitry   | 19 Sep 2020 10:14 |

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| 2323 | Bug           | Backlog | Normal   | GUI: plots: cannot set a horizontal/vertical projection when switching from color map to projections view         |          |                | dmitry        | 19 Sep 2020 10:17 |
| 2320 | Feature       | Backlog | High     | GUI: project back compatibility: save project should save also the Python script                                  |          |                | ganeva        | 18 Sep 2020 19:03 |
| 2313 | Feature       | Backlog | Normal   | GUI: adjust step value in spin box for wavelength (instrument view)   |          |                | dmitry        | 18 Sep 2020 23:48 |
| 2309 | Testing       | Backlog | Normal   | Core: slicing: Provide more test coverage of multilayer slicing machinery   |          |                | herck         | 19 Sep 2020 10:11 |
| 2300 | Feature       | Backlog | Normal   | PythonAPI: provide beam divergence for OffSpecular simulation   |          |                | pospelov      | 18 Sep 2020 22:41 |
| 2299 | Feature       | Backlog | Normal   | Core: FF: Investigate form factor of a cylinder sector  |          |                | herck         | 18 Sep 2020 16:32 |
| 2293 | Feature       | Backlog | Normal   | 3DView: provide mesocrystals in particle distribution   |          |                | pospelov      | 31 Jan 2019 12:15 |
| 2288 | Bug           | Backlog | High     | Core: inter-particle: Remove numerical instability at q=0 for 2d paracrystal                                      |          |                | herck         | 18 Sep 2020 21:55 |
| 2284 | Configuration | Backlog | Normal   | Installer: Windows: python error when trying to plot.   |          |                | juan          | 19 Sep 2020 10:35 |
| 2281 | Feature       | Backlog | Normal   | GUI: provide pan mode for camera in 3D view   |          |                | pospelov      | 11 Jan 2019 11:26 |
| 2280 | Bug           | Backlog | Normal   | GUI: consecutive import of sample from several python scripts is affected by previous imports                     |          |                | pospelov      | 30 Jul 2019 16:32 |
| 2279 | Feature       | Backlog | Low      | Core: allow the user to select the contributions to the scattering intensity (diffuse, coherent)                  |          |                | herck         | 18 Sep 2020 23:47 |
| 2269 | Bug           | Backlog | Normal   | GUI on Windows: import python script fails with anaconda python in path   |          |                | dmitry        | 19 Sep 2020 10:14 |
| 2266 | Feature       | Backlog | Normal   | GUI: set detector analyzer direction automatically to beam polarization (with the option of changing it manually) |          |                | herck         | 20 Dec 2018 16:56 |
| 2264 | Feature       | Backlog | Normal   | GUI: property panel of intensity data is too narrow on some systems   |          |                | pospelov      | 19 Dec 2018 17:54 |
| 2263 | Feature       | Backlog | Normal   | GUI: provide immediate canceling of running job   |          |                | pospelov      | 19 Dec 2018 17:50 |
| 2261 | Feature       | Backlog | Low      | GUI: WelcomeView: Provide tooltip for project file name   |          |                | pospelov      | 18 Sep 2020 22:35 |
| 2255 | Bug           | Sprint  | High     | Parameterization: incompatible fit parameters handled badly, cause program crash during fitting                   |          |                | Uliana_Koneva | 19 Sep 2020 10:12 |
| 2254 | Feature       | Backlog | High     | Units: Proposal about uniform units of measurement  |          |                | Uliana_Koneva | 19 Sep 2020 09:03 |
| 2253 | Bug           | Backlog | Low      | GUI: The "Fit parameters" window is incorrectly displayed   |          |                | Uliana_Koneva | 18 Sep 2020 14:43 |
| 2251 | Bug           | Backlog | Low      | GUI: plots: The ordinate (y) scale of graph "Iteration" incorrect display.  |          |                | Uliana_Koneva | 19 Sep 2020 10:16 |
| 2248 | Bug           | Backlog | Low      | GUI: Material editor: problems on windows   |          |                | dmitry        | 18 Sep 2020 22:54 |
| 2244 | Feature       | Backlog | Low      | PythonAPI: support DepthProbeInstrument (currently GUI only)  |          |                | pospelov      | 18 Sep 2020 23:20 |
| 2242 | Refactoring   | Backlog | Normal   | Parameterization: Provide common interface of handling mean/center/median value in distributions                  |          |                | dmitry        | 18 Sep 2020 22:40 |
| 2241 | Refactoring   | Backlog | Normal   | GUI: Replace DoubleEditor and ScientificDoublePropertyEditor with ScientificSpinBox                               |          |                | dmitry        | 18 Sep 2020 21:50 |
| 2240 | Refactoring   | Backlog | Normal   | GUI: InstrumentItem: refactor unit convertor construction   |          |                | pospelov      | 18 Sep 2020 22:27 |
| 2238 | Feature       | Backlog | Low      | GUI: Import tab: Get rid of "Linked_instrument"   |          |                | dmitry        | 18 Sep 2020 18:19 |
| 2234 | Refactoring   | Backlog | Normal   | Fit: Simplify minimizer constructor   |          |                | pospelov      | 18 Sep 2020 20:09 |

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| 2232 | Feature       | Backlog | Normal   | GUI: provide units in tooltips  |            |                | ganeva        | 18 Sep 2020 19:01 |
| 2230 | Bug           | Backlog | Normal   | GUI on Cinnamon: Window control buttons are missed  |            |                | ganeva        | 28 Nov 2018 11:31 |
| 2227 | Feature       | Backlog | Normal   | GUI highdpi: fix Windows scaling issues   |            |                | pospelov      | 16 Nov 2018 12:53 |
| 2226 | Feature       | Backlog | Normal   | GUI highdpi: provide common access to scale factor  |            |                | pospelov      | 16 Nov 2018 12:50 |
| 2221 | Refactoring   | Backlog | Low      | Installer: Windows: get libraries from Nuget?   |            |                | pospelov      | 18 Sep 2020 18:30 |
| 2215 | Feature       | Backlog | Low      | Core: inter-particle: implement other variant for 2d lattice interference function                      |            |                | herck         | 18 Sep 2020 23:17 |
| 2211 | Refactoring   | Backlog | Low      | GUI: Fit view: Refactor fit progress/fit comparison widgets   |            |                | pospelov      | 18 Sep 2020 18:33 |
| 2209 | Feature       | Backlog | Normal   | Example to create: Fit using bumps minimizer  | rbeerwerth |                | pospelov      | 21 Dec 2020 08:27 |
| 2206 | Feature       | Backlog | Low      | GUI: restore broken drag-and-drop in the ItemTreeView   |            |                | pospelov      | 18 Oct 2018 15:48 |
| 2205 | Feature       | Backlog | Low      | Fit: Replace difference plot in fitobserver with the true metric used for minimization                  |            |                | herck         | 18 Sep 2020 21:51 |
| 2204 | Feature       | Backlog | Normal   | GUI highdpi: switch mainwindow to highdpi mode on Linux by default                                      |            |                | pospelov      | 18 Oct 2018 13:39 |
| 2203 | Feature       | Backlog | Normal   | GUI highdpi: refactor FancyTabWidget to account for high dpi monitors                                   |            |                | pospelov      | 14 Dec 2020 10:02 |
| 2202 | Feature       | Backlog | Normal   | GUI highdpi: replace remaining png icons with their svg versions  |            |                | pospelov      | 18 Oct 2018 13:34 |
| 2197 | Feature       | Backlog | Normal   | 3DView: provide default selection of MultiLayer on 3DView open  |            |                | pospelov      | 06 Dec 2018 19:15 |
| 2191 | Feature       | Backlog | Normal   | Example to create: Lamellar structure   |            |                | pospelov      | 18 Sep 2020 15:59 |
| 2185 | Documentation | Backlog | Normal   | Installer: MacOS: Explain peculiarities of matplotlib usage   |            |                | pospelov      | 18 Sep 2020 18:37 |
| 2180 | Bug           | Backlog | Normal   | GUI autosave: always use local folder for autosave functionality (also when project lives in the cloud) |            |                | Uliana_Koneva | 18 Sep 2020 23:46 |
| 2164 | Feature       | Backlog | Low      | Core: import: support edf format for scattering data  |            |                | herck         | 18 Sep 2020 23:16 |
| 2160 | Feature       | Backlog | Low      | GUI: consider mask editor to be invoked from instrument view  |            |                | pospelov      | 18 Sep 2020 23:43 |
| 2159 | Feature       | Backlog | Normal   | 3DView: improve appearance when particle size is large  |            |                | pospelov      | 18 Sep 2020 23:15 |
| 2157 | Feature       | Backlog | Normal   | Example to create: silver behenate standard sample  |            |                | pospelov      | 18 Sep 2020 16:00 |
| 2133 | Testing       | Backlog | Normal   | Core: slicing: ensure functional test coverage of sliced particles                                      |            |                | herck         | 18 Sep 2020 23:35 |
| 2130 | Refactoring   | Backlog | Normal   | Core API: Reduce the number of possible ways to access data through SimulationResult                    |            |                | dmitry        | 18 Sep 2020 22:32 |
| 2120 | Refactoring   | Backlog | Low      | Core: inter-particle: Let decay functions calculate the minimum and maximum values of q to use          |            |                | herck         | 18 Sep 2020 23:03 |
| 2114 | Feature       | Backlog | Normal   | Code dependencies: get rid of boost::iostreams  |            |                | pospelov      | 19 Sep 2020 10:04 |
| 2112 | Feature       | Backlog | Normal   | Code dependencies: get rid of boost::program_options  |            |                | pospelov      | 19 Sep 2020 10:04 |
| 2109 | Refactoring   | Backlog | Low      | GUI: plots: refactor 1D and 2D plotting   |            |                | pospelov      | 19 Sep 2020 10:15 |
| 2099 | Bug           | Backlog | Normal   | GUI: relative difference item in fit comparison requires revision                                       |            |                | dmitry        | 18 Sep 2020 22:25 |
| 2094 | Feature       | Backlog | Normal   | Polarized: allow magnetic scattering for all IComputations  | rbeerwerth |                | herck         | 23 Sep 2020 11:04 |
| 2093 | Refactoring   | Backlog | Normal   | GUI: plots: create prototype of universal 1D, 2D plot machinery   |            |                | pospelov      | 19 Sep 2020 10:14 |

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| 2090 | Bug           | Backlog | Low      | GUI: Fitting history is wiped out after switching to another view and back   |          |                | dmitry   | 18 Sep 2020 23:24 |
| 2087 | Documentation | Backlog | Normal   | Website: provide "description" and "keywords" meta information   |          |                | pospelov | 14 Jun 2018 17:35 |
| 2086 | Feature       | Backlog | Normal   | GUI: introduce extended distribution editor for ParticleDistributionItem   |          |                | pospelov | 28 Nov 2018 15:43 |
| 2085 | Feature       | Backlog | Normal   | 3DView: move time consuming operations in a thread   |          |                | pospelov | 18 Sep 2020 16:01 |
| 2067 | Feature       | Backlog | Normal   | Python utils: enhance functionality for reflectometry plotting   |          |                | dmitry   | 18 Sep 2020 19:52 |
| 2066 | Feature       | Backlog | Normal   | Installer: MacOS: cleanup dmg installer from unnecessary Qt libraries  |          |                | pospelov | 18 Sep 2020 23:44 |
| 2064 | Bug           | Backlog | Low      | GUI: plots: weird behaviour when equalizing plots  |          |                | dmitry   | 19 Sep 2020 10:16 |
| 2058 | Feature       | Backlog | Normal   | Core: compute Poisson error estimate for experimental real data  |          |                | dmitry   | 18 Sep 2020 23:22 |
| 2056 | Feature       | Backlog | Low      | GUI: Restore MaterialPropertyController  |          |                | pospelov | 18 Sep 2020 20:24 |
| 2050 | Refactoring   | Backlog | Normal   | GUI: SessionModel::copyItem: remove dependence on XML serialization  |          |                | herck    | 18 Sep 2020 22:25 |
| 2037 | Bug           | Backlog | High     | Fit: Unrealistically high error estimate (while fitting specular signal)   |          |                | dmitry   | 21 Sep 2020 12:01 |
| 2025 | Bug           | Backlog | High     | Core: slicing: makes mesocrystal simulation very slow  |          |                | pospelov | 19 Sep 2020 10:10 |
| 2020 | Testing       | Backlog | Low      | Test: add functional test of reproducibility of simulation runs  |          |                | dmitry   | 18 Sep 2020 22:45 |
| 2013 | Documentation | Backlog | Normal   | Example to create: project file with 'real' data and web tutorial using this                                       |          |                | herck    | 18 Sep 2020 16:01 |
| 2011 | Refactoring   | Backlog | Normal   | PythonAPI: improve access to the simulation results  |          |                | ganeva   | 18 Sep 2020 18:38 |
| 2000 | Feature       | Backlog | Normal   | CMake: Linux installation: use rpath for our own binaries  |          |                | pospelov | 19 Sep 2020 10:18 |
| 1996 | Feature       | Backlog | Low      | GUI: About: print build time   |          |                | pospelov | 18 Sep 2020 16:04 |
| 1994 | Feature       | Backlog | Normal   | Units: Enable automatic conversion of parameter values/limits between GUI and Core (enabling angle fit parameters) |          |                | herck    | 18 Sep 2020 23:27 |
| 1992 | Feature       | Backlog | Low      | GUI: RealTimeView: revise  |          |                | pospelov | 18 Sep 2020 20:18 |
| 1990 | Refactoring   | Sprint  | Normal   | Code organisation: Remove duplicate type definitions in BornAgainNamespace.h and item_constants.h                  | wuttke   |                | herck    | 18 Sep 2020 21:56 |
| 1988 | Feature       | Backlog | Normal   | Fit: Propagate best fit parameter values to parameter tree and fit parameter list                                  |          |                | herck    | 18 Sep 2020 22:48 |
| 1984 | Bug           | Backlog | Normal   | GUI: collaps/expand arrows on InstrumentView are too big on Mac  |          |                | pospelov | 26 Jun 2020 18:48 |
| 1972 | Feature       | Backlog | Normal   | GUI: provide beam divergence for OffSpec instrument  |          |                | pospelov | 06 Dec 2018 19:14 |
| 1971 | Documentation | Backlog | Normal   | Fit: Provide description of fitting engines' options   |          |                | dmitry   | 18 Sep 2020 22:38 |
| 1928 | Feature       | Backlog | Low      | GUI: SpecularSimulation: progress counter broken   |          |                | dmitry   | 18 Sep 2020 22:55 |
| 1927 | Feature       | Backlog | Normal   | Core: inter-particle: InterferenceFunction2DParaCrystal::interference1D is slow                                    |          |                | pospelov | 19 Sep 2020 10:19 |
| 1918 | Refactoring   | Backlog | Normal   | Core API: review IHistogram class family   |          |                | dmitry   | 18 Sep 2020 22:34 |
| 1893 | Refactoring   | Backlog | Low      | GUI: provide uniform splitters where possible  |          |                | pospelov | 18 Sep 2020 19:01 |
| 1864 | Feature       | Backlog | Normal   | GUI: About: provide option to export citation  |          |                | ganeva   | 18 Sep 2020 18:59 |
| 1847 | Refactoring   | Backlog | Normal   | Test: let IFactory support variadic constructor parameters   |          |                | pospelov | 19 Sep 2020 10:35 |

| #    | Tracker       | Status         | Priority | Subject   | Assignee | Target version | Author   | Updated           |
|------|---------------|----------------|----------|---|----------|----------------|----------|-------------------|
| 1817 | Feature       | Backlog        | Normal   | GUI: provide an easy way of importing instrument definitions and real data into the GUI             |          |                | herck    | 18 Sep 2020 22:43 |
| 1805 | Feature       | Long Term Idea | Low      | Code dependencies: investigate usage of Python packages from C++ (fabio, periodictable)             |          |                | pospelov | 19 Sep 2020 10:06 |
| 1781 | Bug           | Backlog        | High     | Installer: Linux: Fix thisbornagain.sh to correctly drop from path previous BornAgain installation. |          |                | pospelov | 18 Sep 2020 18:49 |
| 1775 | Refactoring   | Backlog        | Normal   | Parameterization: Check pyramid like shapes for angles > 90 degrees                                 |          |                | herck    | 18 Sep 2020 23:44 |
| 1773 | Feature       | Backlog        | Low      | GUI: implement a ruler for ProjectionsEditor  |          |                | pospelov | 18 Sep 2020 18:57 |
| 1766 | Refactoring   | Backlog        | Normal   | Core: FF: Replace all form factors in sample creation by shapes                                     | wuttke   |                | herck    | 21 Sep 2020 12:09 |
| 1755 | Feature       | Backlog        | Low      | GUI: provide additional command line parameter to open existing projects                            |          |                | pospelov | 18 Sep 2020 18:58 |
| 1754 | Feature       | Backlog        | Normal   | Fit: investigate log-likelihood, Poisson statistics   |          |                | pospelov | 18 Sep 2020 19:07 |
| 1751 | Feature       | Backlog        | Normal   | CMake: warn if there are remnants of other BornAgain installation                                   |          |                | pospelov | 18 Sep 2020 23:43 |
| 1718 | Configuration | Backlog        | Low      | Installer: Windows: Provide alternative installer with debug symbols                                |          |                | pospelov | 18 Sep 2020 19:25 |
| 1715 | Feature       | Backlog        | Normal   | Core API: start sample construction with SlabSample() or FilmSample()                               |          |                | wuttke   | 18 Sep 2020 16:39 |
| 1704 | Feature       | Backlog        | Low      | Fit: Revise chi squared module  |          |                | wuttke   | 18 Sep 2020 19:37 |
| 1698 | Feature       | Backlog        | Normal   | GUI: save/load detector mask  |          |                | wuttke   | 18 Sep 2020 19:05 |
| 1685 | Refactoring   | Backlog        | Normal   | PythonAPI: Only expose classes/functions that users might need                                      |          |                | wuttke   | 18 Sep 2020 19:40 |
| 1677 | Feature       | Backlog        | High     | Core: roughness: Independent roughness cross-correlation for disjoint sets of interfaces            |          |                | ganeva   | 18 Sep 2020 17:39 |
| 1666 | Feature       | Backlog        | Normal   | PythonAPI: Constructor of Histogram2D should accept also numpy arrays with dtype=int                |          |                | ganeva   | 18 Sep 2020 17:00 |
| 1612 | Feature       | Backlog        | High     | Core: beam propagation: add forward scattering amplitudes to specular amplitude                     |          |                | herck    | 19 Sep 2020 10:32 |
| 1578 | Refactoring   | Backlog        | Low      | Core: FF: reimplement ripples as Cartesian product Profile * Decay                                  |          |                | wuttke   | 18 Sep 2020 18:37 |
| 1569 | Refactoring   | Backlog        | Normal   | Core: FF: API: rename hard particle form factors  |          |                | wuttke   | 18 Sep 2020 16:42 |
| 1568 | Feature       | Backlog        | Low      | Core: FF: Implement TruncatedEllipsoid to replace HemiEllipsoid                                     | wuttke   |                | wuttke   | 18 Sep 2020 18:10 |
| 1540 | Feature       | Long Term Idea | Normal   | Core: support incoherent z-distribution of particles inside layer                                   |          |                | herck    | 18 Sep 2020 16:59 |
| 1507 | Feature       | Backlog        | Low      | GUI: Sample builder & editor: SHIFT+LeftClick should add to selection                               |          |                | wuttke   | 18 Sep 2020 19:05 |
| 1506 | Feature       | Backlog        | Low      | GUI Sample Tree View: cut / paste or move to be added to right-click popup menu                     |          |                | wuttke   | 18 Sep 2020 18:53 |
| 1504 | Feature       | Backlog        | Low      | GUI: support standard control keys  |          |                | wuttke   | 18 Sep 2020 19:06 |
| 1495 | Refactoring   | Backlog        | Normal   | GUI: extend GUISuite functional test machinery with standard fits                                   |          |                | pospelov | 01 Jul 2016 13:50 |
| 1494 | Refactoring   | Backlog        | Normal   | GUI: Implement export of fitting setup to python script.  |          |                | pospelov | 01 Jul 2016 13:50 |
| 1493 | Refactoring   | Backlog        | Normal   | GUI: Implement tranform from domain for fitting objects   |          |                | pospelov | 01 Jul 2016 13:50 |
| 1416 | Bug           | Backlog        | Normal   | Core: FF: form factors with numeric integration fail for small and for large q                      |          |                | wuttke   | 18 Sep 2020 18:20 |

| #    | Tracker       | Status         | Priority | Subject  | Assignee   | Target version | Author   | Updated           |
|------|---------------|----------------|----------|--|------------|----------------|----------|-------------------|
| 1415 | Feature       | Backlog        | Low      | Parameterization: onChange() should invalidate cache, and not immediately execute precompute()   |            |                | wuttke   | 21 Sep 2020 12:08 |
| 1229 | Feature       | Backlog        | Normal   | Installer: MacOS: create BornAgain "tap" and "formula" for Homebrew  |            |                | pospelov | 18 Sep 2020 22:59 |
| 1214 | Feature       | Backlog        | Normal   | 3DView: visualize rough interfaces   |            |                | pospelov | 02 Nov 2020 13:54 |
| 1175 | Configuration | Backlog        | Normal   | Installer: Linux: Provide official debian package  |            |                | ganeva   | 18 Sep 2020 22:36 |
| 1141 | Documentation | Backlog        | High     | Manual: describe multi layers  |            |                | pospelov | 18 Sep 2020 17:20 |
| 1102 | Documentation | Sprint         | Normal   | Core: instrument simulation: review normalization, especially in view of finite sample extension, finite beam width, and small glancing angles | rbeerwerth |                | wuttke   | 18 Sep 2020 20:20 |
| 1082 | Refactoring   | Sprint         | High     | GUI: provide undo/redo functionality   | pospelov   | v2.0           | pospelov | 18 Sep 2020 19:01 |
| 1068 | Feature       | Backlog        | Normal   | GUI: provide SLD profile view  |            |                | a.glavic | 18 Sep 2020 20:08 |
| 1060 | Refactoring   | Backlog        | Normal   | Core: refactor SSCA according to manual  |            |                | wuttke   | 18 Sep 2020 16:57 |
| 1032 | Feature       | Long Term Idea | Normal   | Core: Rotation of inter-particle structures  |            |                | a.glavic | 22 Sep 2020 14:18 |
| 1014 | Documentation | Backlog        | Normal   | Parameterization: document simulation with distributed parameters  |            |                | pospelov | 18 Sep 2020 23:13 |
| 983  | Documentation | In Progress    | High     | Physics manual: add chapter on beam propagation in stratified samples  | wuttke     |                | wuttke   | 18 Sep 2020 17:12 |
| 981  | Feature       | Backlog        | Low      | GUI: Real-time activity: update refractive index when varying wavelength   |            |                | ganeva   | 18 Sep 2020 18:25 |
| 907  | Feature       | Backlog        | Normal   | Example to create: MesoCrystal tutorial  |            |                | pospelov | 18 Sep 2020 16:55 |
| 697  | Feature       | Backlog        | Normal   | Core: support Monte Carlo integration over all incoherent parameters   |            |                | herck    | 19 Sep 2020 10:11 |
| 587  | Feature       | Long Term Idea | Low      | Fit: investigate objective function alternatives   |            |                | pospelov | 18 Sep 2020 23:05 |
| 31   | Feature       | Backlog        | Low      | Core: beam propagation: Implement x-ray polarization factor  |            |                | herck    | 18 Sep 2020 17:37 |
| 12   | Feature       | Backlog        | Normal   | Core: SLD: Calculation of refractive index for x-rays and neutrons from database   |            |                | pospelov | 18 Sep 2020 18:10 |