

## CoCoALib - Issues

| #    | Project  | Parent task | Priority | Subject   | Assignee           | Updated           | Category        | % Done |
|------|----------|-------------|----------|---|--------------------|-------------------|-----------------|--------|
| 1809 | CoCoALib |             | Normal   | Make ex-syz.C   | Anna Maria Bigatti | 28 Mar 2024 08:45 | Documentation   | 10     |
| 1808 | CoCoALib |             | Normal   | New constructor for PolyRing with elimination ordering                    | Anna Maria Bigatti | 28 Mar 2024 07:35 | New Function    | 10     |
| 1803 | CoCoALib |             | Normal   | Improve trivial operations with ideal whose GBasis is [1]                 | Anna Maria Bigatti | 25 Mar 2024 19:06 |                 | 0      |
| 1796 | CoCoALib |             | Normal   | myFinalizeGBasis ("Final clean up") should be more flexible               | Anna Maria Bigatti | 22 Mar 2024 16:19 | Improving       | 30     |
| 1786 | CoCoALib |             | Normal   | Add new function for IsInRadical for monomial ideals? (RadicalMembership) | Anna Maria Bigatti | 01 Mar 2024 18:37 | Improving       | 10     |
| 1782 | CoCoALib |             | Normal   | Make CoCoALib test file for radical                                       | Anna Maria Bigatti | 01 Mar 2024 09:44 | Tidying         | 0      |
| 1775 | CoCoALib |             | Normal   | CoCoALib releases on redmine  | Anna Maria Bigatti | 03 May 2024 07:32 | Documentation   | 70     |
| 1744 | CoCoALib |             | Normal   | Implement GBMill (aka Groebner Framework)                                 | Anna Maria Bigatti | 25 May 2023 14:30 | Data Structures | 10     |
| 1743 | CoCoALib |             | Normal   | Implement Truncated GBases for homogeneous input                          | Anna Maria Bigatti | 19 May 2023 15:42 | New Function    | 0      |
| 1742 | CoCoALib |             | Normal   | MinGens could be faster   | Anna Maria Bigatti | 18 May 2023 13:44 | Improving       | 10     |
| 1740 | CoCoALib |             | High     | MinGens gives non minimal gens *if some deg=0*                            | Anna Maria Bigatti | 22 Mar 2024 18:04 | Maths Bugs      | 30     |
| 1737 | CoCoALib |             | Normal   | Homogenization of an ideal with $\mathbb{Z}^1$ -grading                   | Anna Maria Bigatti | 01 Feb 2024 19:59 | Improving       | 20     |
| 1720 | CoCoALib |             | Normal   | DivAlg in CoCoALib  | Anna Maria Bigatti | 25 Mar 2024 17:55 | Tidying         | 20     |
| 1711 | CoCoALib |             | Normal   | Development releases?   | Anna Maria Bigatti | 09 Mar 2023 20:56 | Various         | 90     |
| 1704 | CoCoALib |             | Normal   | Symlink directory for external files needed by CoCoA-5                    | Anna Maria Bigatti | 18 Mar 2024 09:29 | Tidying         | 0      |
| 1687 | CoCoALib |             | Normal   | Release CoCoALib 0.99850  | Anna Maria Bigatti | 29 Mar 2024 10:42 | Various         | 50     |
| 1665 | CoCoALib |             | Normal   | Compilation on Windows: problems for normaliz                             | Anna Maria Bigatti | 18 Mar 2024 09:27 | Documentation   | 0      |
| 1662 | CoCoALib |             | Normal   | txt2tags: problem with filenames containing "_" or "-"                    | Anna Maria Bigatti | 09 Apr 2024 14:21 | Documentation   | 80     |
| 1575 | CoCoALib |             | Normal   | DynamicBitset missing arg checks  | Anna Maria Bigatti | 16 Feb 2024 09:46 | Safety          | 0      |
| 1571 | CoCoALib |             | Normal   | ker_H needs care  | Anna Maria Bigatti | 16 Feb 2024 17:49 | Maths Bugs      | 10     |
| 1441 | CoCoALib |             | Normal   | GFan: port CoCoA_5 functions into CoCoALib                                | Anna Maria Bigatti | 16 Feb 2024 17:54 | New Function    | 0      |
| 1433 | CoCoALib |             | Normal   | HilbertDriven Buchberger Algorithm  | Anna Maria Bigatti | 16 Feb 2024 18:02 | New Function    | 0      |
| 1422 | CoCoALib |             | Normal   | Remove flag IhaveGBasisValue?   | Anna Maria Bigatti | 16 Feb 2024 17:56 | Data Structures | 10     |
| 1417 | CoCoALib |             | Normal   | RadicalZeroDim with extra parameter for GBasis timeout                    | Anna Maria Bigatti | 16 Mar 2024 21:42 | Improving       | 20     |
| 1394 | CoCoALib |             | Low      | Oddly slow GBasis computation (slow final cleanup)                        | Anna Maria Bigatti | 16 Apr 2024 22:46 | Improving       | 70     |
| 1337 | CoCoALib |             | Normal   | PrimaryDecomposition: a interesting/pathological example                  | Anna Maria Bigatti | 08 Mar 2023 21:13 | Improving       | 10     |
| 1254 | CoCoALib |             | Normal   | New function: MinPoly for pseudo-zero-dimensional ideals                  | Anna Maria Bigatti | 07 Mar 2024 20:25 | New Function    | 0      |
| 1179 | CoCoALib |             | Normal   | Clean up SparsePolyOps-MonomialIdeals                                     | Anna Maria Bigatti | 22 Mar 2024 09:33 | Tidying         | 20     |
| 1132 | CoCoALib |             | Normal   | Canonical homomorphism for (some) polynomial rings?                       | Anna Maria Bigatti | 08 Mar 2024 18:01 | New Function    | 0      |
| 1103 | CoCoALib |             | Normal   | Pseudo-zero-dim ideals  | Anna Maria Bigatti | 05 Nov 2021 16:09 | Improving       | 30     |

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| 1096 | CoCoALib |             | Low       | WEB SITE: HTML is not clean!                                      | Anna Maria Bigatti | 31 Aug 2017 10:05 | Documentation   | 0      |
| 1094 | CoCoALib |             | Normal    | Revive code for SelfSaturating GBasis                             | Anna Maria Bigatti | 22 Mar 2024 14:38 | New Function    | 50     |
| 1070 | CoCoALib |             | Normal    | Slug: MakeTermOrd (rk calls in RemoveRedundantRows)               | Anna Maria Bigatti | 17 May 2017 13:47 | Improving       | 10     |
| 1066 | CoCoALib |             | Normal    | Documentation: translation table                                  | Anna Maria Bigatti | 08 Mar 2024 18:16 | Documentation   | 30     |
| 1057 | CoCoALib |             | High      | Slug: Polynomial ring constructor slow with (big) matrix ordering | Anna Maria Bigatti | 22 Mar 2024 09:31 | Improving       | 50     |
| 967  | CoCoALib |             | Normal    | Improve saturate  | Anna Maria Bigatti | 22 Mar 2024 10:18 | Improving       | 70     |
| 958  | CoCoALib |             | Normal    | New function: multiplicity and dim                                | Anna Maria Bigatti | 08 Mar 2024 18:15 | New Function    | 80     |
| 949  | CoCoALib |             | Normal    | New function: IdealWithIncrementalGBasis(l, f)                    | Anna Maria Bigatti | 16 Feb 2024 18:03 | New Function    | 0      |
| 937  | CoCoALib |             | Normal    | LinDepMill: Mill for linear dependencies                          | Anna Maria Bigatti | 18 Apr 2024 16:38 | New Function    | 10     |
| 924  | CoCoALib |             | Normal    | FlagManager for bool/bool3 flags                                  | Anna Maria Bigatti | 16 Feb 2024 17:57 | Data Structures | 50     |
| 913  | CoCoALib |             | Normal    | Read input from SymbolicData database                             | Anna Maria Bigatti | 02 Aug 2016 10:55 | New Function    | 0      |
| 898  | CoCoALib |             | High      | New function: cardinality of finite field?                        | Anna Maria Bigatti | 08 Mar 2024 17:45 | New Function    | 20     |
| 849  | CoCoALib |             | Normal    | Cleanup MinPoly code  | Anna Maria Bigatti | 08 Mar 2024 18:15 | Tidying         | 10     |
| 813  | CoCoALib |             | Immediate | Implement "elim" in CoCoALib                                      | Anna Maria Bigatti | 18 Mar 2024 15:58 | New Function    | 90     |
| 809  | CoCoALib |             | Normal    | FastCmp for degree -- useful?                                     | Anna Maria Bigatti | 27 Nov 2015 16:06 | Tidying         | 0      |
| 791  | CoCoALib |             | Normal    | Clean code for DistrMPolyClean                                    | Anna Maria Bigatti | 02 Nov 2015 22:13 | Tidying         | 0      |
| 780  | CoCoALib |             | Normal    | GroebnerFan/ExternalLib-GFan: improve package                     | Anna Maria Bigatti | 21 Apr 2017 11:06 | Improving       | 20     |
| 777  | CoCoALib |             | Normal    | SLUG: elimination   | Anna Maria Bigatti | 22 Mar 2024 18:12 | Improving       | 10     |
| 765  | CoCoALib |             | Normal    | ExternalLib-CDD: (needed by GFan)                                 | Anna Maria Bigatti | 11 Sep 2019 13:47 | Portability     | 10     |
| 707  | CoCoALib |             | Normal    | MatrixOrderingMod32749Impl: test and write documentation!         | Anna Maria Bigatti | 25 Apr 2024 21:46 | Safety          | 50     |
| 703  | CoCoALib |             | Normal    | Add more operations between modules (CoCoALib)                    | Anna Maria Bigatti | 27 Oct 2017 11:53 | New Function    | 10     |
| 686  | CoCoALib |             | Normal    | myAddMul in poly rings  | Anna Maria Bigatti | 20 Apr 2015 13:22 | Tidying         | 20     |
| 676  | CoCoALib |             | Normal    | Credits to CoCoALib contributors                                  | Anna Maria Bigatti | 28 Apr 2017 11:06 | Documentation   | 10     |
| 624  | CoCoALib |             | Normal    | Wikipedia   | Anna Maria Bigatti | 06 Nov 2017 13:40 | Documentation   | 0      |
| 598  | CoCoALib |             | Normal    | Syzygy for modules: non-homogeneous module                        | Anna Maria Bigatti | 27 Mar 2024 17:31 | Improving       | 40     |
| 589  | CoCoALib |             | Normal    | Implement gin (generic initial ideal) in cocoalib                 | Anna Maria Bigatti | 15 Jul 2014 18:17 | New Function    | 0      |
| 505  | CoCoALib |             | Normal    | Documentation: write doc for RingDenseUPolyClean                  | Anna Maria Bigatti | 21 Sep 2016 17:15 | Documentation   | 0      |
| 409  | CoCoALib |             | High      | Minimal syzygies (optimized implementation)                       | Anna Maria Bigatti | 31 Jul 2014 12:36 | New Function    | 0      |
| 399  | CoCoALib |             | High      | add myHilbertSeries member field to ideal and (sub)module         | Anna Maria Bigatti | 30 Jul 2014 17:04 | New Function    | 0      |
| 387  | CoCoALib |             | High      | implement algorithm(s) for resolutions                            | Anna Maria Bigatti | 30 Jul 2014 17:04 | New Function    | 0      |
| 386  | CoCoALib |             | High      | add resolution data type  | Anna Maria Bigatti | 11 Jun 2015 14:58 | New Function    | 10     |
| 316  | CoCoALib |             | Normal    | submodule constructor different from ideal                        | Anna Maria Bigatti | 10 Jul 2014 16:21 | Tidying         | 0      |

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| 313 | CoCoALib |             | High     | Elim(vector<long>) as PPOrderingCtor                           | Anna Maria Bigatti | 22 Mar 2024 18:17 | New Function  | 30     |
| 205 | CoCoALib |             | Normal   | Example for change of coordinates with coeffs in a matrix      | Anna Maria Bigatti | 14 Jul 2014 14:39 | Documentation | 0      |
| 196 | CoCoALib |             | Normal   | PPWithMask needs checking                                      | Anna Maria Bigatti | 04 Apr 2014 17:50 | Documentation | 0      |
| 87  | CoCoALib |             | Normal   | Cleanup header for ring classes (so that they are e-diff-able) | Anna Maria Bigatti | 10 Jul 2014 16:26 | Tidying       | 10     |
| 26  | CoCoALib |             | High     | Redmine Administration   | Anna Maria Bigatti | 23 Feb 2024 10:59 | Documentation | 80     |