

CoCoALib - CoCoALib Open Issues

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|-----------------------------|------------------|-------------|--|-------------------|--------|----------|--------------------|
| None (11) | | | | | | | |
| 6 | CoCoALib-1.0 | New | Sort out RingElem, RefRingElem, ConstRefRingElem mess | 01 Aug 2014 08:59 | 0 | High | John Abbott |
| 257 | CoCoALib-1.0 | New | Transcribe C4 code for GCD in QQ[x] | 01 Aug 2014 08:59 | 0 | Normal | |
| 258 | CoCoALib-1.0 | New | Multivariate lifting | 01 Aug 2014 08:59 | 0 | Normal | |
| 277 | CoCoALib-1.0 | New | Eliminate class RefPPMonoidElem? | 01 Aug 2014 08:59 | 0 | Normal | |
| 281 | CoCoALib-1.0 | New | Store unique copy of FF(p) in GlobalManager | 04 Apr 2014 17:10 | 0 | Normal | |
| 282 | CoCoALib-1.0 | New | Global setting: to use IsProbPrime in place of IsPrime | 01 Aug 2014 08:59 | 0 | Normal | |
| 919 | CoCoALib-1.0 | New | Hilbert Driven GBasis | 22 May 2017 14:11 | 0 | Normal | |
| 921 | CoCoALib-1.0 | New | Design GBMill | 22 May 2017 14:11 | 0 | Normal | |
| 1803 | CoCoALib-0.99900 | New | Improve trivial operations with ideal whose GBasis is [1] | 25 Mar 2024 19:06 | 0 | Normal | Anna Maria Bigatti |
| 1620 | | New | MinPolyQuot not documented | 15 Oct 2021 14:24 | 0 | Normal | |
| 1654 | | New | New function IsInSymbols | 12 May 2023 08:03 | 0 | Normal | |
| Data Structures (20) | | | | | | | |
| 126 | CoCoALib-1.0 | New | New datastructures directory | 13 May 2015 09:56 | 0 | Normal | |
| 130 | CoCoALib-1.0 | New | Design problem in ideals | 13 May 2015 09:56 | 0 | Normal | |
| 396 | CoCoALib-1.0 | New | PPMonoidElemAlias: redesign PPMonoidElem the same way as RingElem? | 13 May 2015 09:57 | 0 | Normal | John Abbott |
| 550 | CoCoALib-1.0 | New | add myResolution member field to ideal and (sub)module | 13 May 2015 09:57 | 0 | Normal | |
| 826 | CoCoALib-1.0 | New | Sparse matrices | 02 Dec 2015 18:24 | 0 | Normal | |
| 1784 | CoCoALib-0.99900 | New | Add flag IhaveHomogGensValue for ideals in SparsePolyRing? | 01 Mar 2024 14:36 | 0 | Normal | |
| 871 | CoCoALib-0.99880 | New | Redesign ideals | 31 Oct 2023 11:24 | 0 | Normal | |
| 427 | CoCoALib-1.0 | In Progress | Error names and error messages (current design) | 11 May 2017 10:57 | 10 | Normal | |
| 729 | CoCoALib-1.0 | In Progress | Betti numbers, betti diagram | 14 Jun 2018 15:54 | 10 | Normal | |
| 769 | CoCoALib-1.0 | In Progress | CoCoALib cone | 27 Jan 2020 15:32 | 10 | Normal | |
| 1767 | CoCoALib-0.99900 | In Progress | Finalize design for ideals in CoCoALib | 08 Mar 2024 17:26 | 10 | Normal | |
| 1381 | CoCoALib-0.99880 | In Progress | Type ideal for ZZ[x[1..n]] | 16 Feb 2024 09:47 | 10 | Normal | |
| 1422 | CoCoALib-0.99880 | In Progress | Remove flag IhaveGBasisValue? | 16 Feb 2024 17:56 | 10 | Normal | Anna Maria Bigatti |
| 1738 | CoCoALib-0.99880 | New | Suggestion about Graded polynomial rings | 05 May 2023 08:47 | 10 | Normal | |
| 1744 | CoCoALib-0.99880 | In Progress | Implement GBMill (aka Groebner Framework) | 25 May 2023 14:30 | 10 | Normal | Anna Maria Bigatti |
| 1414 | CoCoALib-0.99880 | In Progress | Make class RingElemVector? | 25 Apr 2024 21:53 | 20 | High | |

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|---------------------------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 1115 | CoCoALib-0.99900 | In Progress | New class: exterior algebra | 31 Jan 2024 21:59 | 20 | Normal | John Abbott |
| 832 | CoCoALib-1.0 | New | Generalize grading matrix | 14 Mar 2024 11:29 | 20 | Low | |
| 1168 | CoCoALib-0.99900 | In Progress | ideal: does const ourGetPtr really need to be private? | 08 Mar 2024 17:26 | 40 | Normal | |
| 924 | CoCoALib-0.99880 | New | FlagManager for bool/bool3 flags | 16 Feb 2024 17:57 | 50 | Normal | Anna Maria Bigatti |
| Documentation (35) | | | | | | | |
| 1561 | CoCoALib-0.99880 | New | Doc for module term orderings | 08 Mar 2024 17:38 | 0 | High | |
| 112 | CoCoALib-1.0 | New | automatic creation of all function signatures | 07 Apr 2014 14:34 | 0 | Normal | |
| 161 | CoCoALib-1.0 | New | Convert old "task table" into redmine | 07 Apr 2014 14:35 | 0 | Normal | |
| 196 | CoCoALib-1.0 | New | PPWithMask needs checking | 04 Apr 2014 17:50 | 0 | Normal | Anna Maria Bigatti |
| 205 | CoCoALib-1.0 | New | Example for change of coordinates with coeffs in a matrix | 14 Jul 2014 14:39 | 0 | Normal | Anna Maria Bigatti |
| 231 | CoCoALib-1.0 | New | Documentation for QBGenerator needs to be improved. | 09 Jul 2014 18:06 | 0 | Normal | |
| 315 | CoCoALib-1.0 | New | Add doc for ApproxPts2 | 10 Jul 2014 16:23 | 0 | Normal | |
| 505 | CoCoALib-1.0 | New | Documentation: write doc for RingDenseUPolyClean | 21 Sep 2016 17:15 | 0 | Normal | Anna Maria Bigatti |
| 569 | CoCoALib-1.0 | New | Documentation for ReductionCog | 11 Jun 2014 16:04 | 0 | Normal | |
| 624 | CoCoALib-1.0 | New | Wikipedia | 06 Nov 2017 13:40 | 0 | Normal | Anna Maria Bigatti |
| 353 | CoCoALib-1.0 | In Progress | Missing documentation and tests for myRecvTwinFloat | 14 Jul 2014 14:40 | 0 | Normal | John Abbott |
| 788 | CoCoALib-1.0 | New | No doc for DistrMPolyInlFpPP | 22 Oct 2015 13:49 | 0 | Normal | |
| 972 | CoCoALib-1.0 | New | ex-PolyIterator | 17 Nov 2016 13:21 | 0 | Normal | |
| 1134 | CoCoALib-1.0 | New | Organize better the documentation for CoCoALib | 09 Apr 2019 10:50 | 0 | Normal | |
| 1584 | CoCoALib-1.0 | New | Benchmarks? | 08 Mar 2023 19:41 | 0 | Normal | |
| 1607 | CoCoALib-0.99900 | New | Coding guidelines | 16 Feb 2024 10:02 | 0 | Normal | |
| 1672 | CoCoALib-0.99900 | New | Documentation: a good model to follow? | 16 Feb 2024 09:33 | 0 | Normal | |
| 1497 | CoCoALib-0.99880 | New | Doc for normaliz fns | 08 Mar 2023 19:40 | 0 | Normal | |
| 1611 | CoCoALib-0.99880 | New | Documentation for PrimaryDecomposition | 16 Feb 2024 09:42 | 0 | Normal | |
| 1664 | CoCoALib-0.99880 | New | geobucket: documentation | 08 Mar 2023 19:44 | 0 | Normal | |
| 1665 | CoCoALib-0.99880 | New | Compilation on Windows: problems for normaliz | 18 Mar 2024 09:27 | 0 | Normal | Anna Maria Bigatti |
| 1673 | CoCoALib-0.99880 | New | Review examples | 08 Mar 2023 19:45 | 0 | Normal | |
| 1812 | CoCoALib-0.99880 | New | Documentation: indexXX.html should be recompiled if version has changed | 29 Mar 2024 10:37 | 0 | Normal | |
| 76 | CoCoALib-1.0 | New | keywords in documentation | 04 Apr 2014 17:51 | 0 | Low | |

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|------|------------------|-------------|--|-------------------|--------|----------|--------------------|
| 926 | CoCoALib-1.0 | New | Documentation: check layout of history at end of generated HTML files (from the txt files) | 21 Sep 2016 13:29 | 0 | Low | |
| 1096 | CoCoALib-1.0 | New | WEB SITE: HTML is not clean! | 31 Aug 2017 10:05 | 0 | Low | Anna Maria Bigatti |
| 676 | CoCoALib-1.0 | In Progress | Credits to CoCoALib contributors | 28 Apr 2017 11:06 | 10 | Normal | Anna Maria Bigatti |
| 1219 | CoCoALib-0.99880 | In Progress | Frobby version number | 08 Mar 2023 19:40 | 10 | Normal | |
| 1809 | CoCoALib-0.99880 | New | Make ex-syz.C | 28 Mar 2024 08:45 | 10 | Normal | Anna Maria Bigatti |
| 59 | CoCoALib-1.0 | New | List of all functions in CoCoALib | 08 Mar 2023 19:44 | 10 | Low | |
| 1066 | CoCoALib-0.99900 | In Progress | Documentation: translation table | 08 Mar 2024 18:16 | 30 | Normal | Anna Maria Bigatti |
| 1510 | CoCoALib-0.99880 | New | Documentation for SparsePolyOps? | 18 Mar 2024 09:45 | 30 | Normal | |
| 1775 | | New | CoCoALib releases on redmine | 12 Jan 2024 13:29 | 70 | Normal | Anna Maria Bigatti |
| 26 | CoCoALib-0.99900 | In Progress | Redmine Administration | 23 Feb 2024 10:59 | 80 | High | Anna Maria Bigatti |
| 1662 | CoCoALib-0.99880 | Resolved | txt2tags: problem with filenames containing "_" or "-" | 09 Apr 2024 14:21 | 80 | Normal | Anna Maria Bigatti |

Improving (96)

| | | | | | | | |
|------|------------------|-----|---|-------------------|---|-----------|-------------|
| 1683 | CoCoALib-0.99880 | New | Islrred in ZZ[x,y] | 16 Feb 2024 09:39 | 0 | Immediate | John Abbott |
| 329 | CoCoALib-1.0 | New | Why is DMPI slower than DMPClean? | 13 May 2015 09:54 | 0 | Normal | |
| 420 | CoCoALib-1.0 | New | Allow user to give a name to a ring | 13 May 2015 09:55 | 0 | Normal | |
| 740 | CoCoALib-1.0 | New | Addition of sparse (multivariate) polynomials | 17 Jun 2016 14:35 | 0 | Normal | |
| 785 | CoCoALib-1.0 | New | finite fields: global register of fields already created? | 15 Oct 2015 17:27 | 0 | Normal | |
| 837 | CoCoALib-1.0 | New | factor is very slow on some simple input polynomials | 06 Jan 2016 14:40 | 0 | Normal | |
| 842 | CoCoALib-1.0 | New | PPMonoidSparse: comparisons are VERY SLOW | 15 Feb 2016 13:57 | 0 | Normal | |
| 869 | CoCoALib-1.0 | New | SmallFpImpl: different repr for computation and for storage? | 22 Apr 2016 15:14 | 0 | Normal | |
| 882 | CoCoALib-1.0 | New | Impl faster multiplication for DUP (dense univariate polys) | 09 May 2016 22:10 | 0 | Normal | |
| 884 | CoCoALib-1.0 | New | DistrMPolyInIPP::myPushFront and DistrMPolyInIPP::myPushBack inefficient if arg is a PP | 24 May 2016 15:25 | 0 | Normal | |
| 904 | CoCoALib-1.0 | New | SmallFpDouble: which impl of InvMod to use? | 04 Jul 2016 13:45 | 0 | Normal | |
| 987 | CoCoALib-1.0 | New | GCD: add special case if args are monomials | 28 Nov 2016 22:04 | 0 | Normal | |
| 1156 | CoCoALib-1.0 | New | Printing for RingElem | 08 Jan 2020 23:02 | 0 | Normal | |
| 1187 | CoCoALib-1.0 | New | Matrix rank is slow (over QQ) | 26 Jun 2018 11:29 | 0 | Normal | |
| 1266 | CoCoALib-1.0 | New | Make a poly ring QQ[x,y,z] also contain a ZZ[x,y,z] | 28 Mar 2019 16:42 | 0 | Normal | |

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|------|------------------|-------------|--|-------------------|--------|----------|--------------------|
| 1269 | CoCoALib-1.0 | New | Ideal Ops: sort-cuts for trivial args? | 04 Apr 2019 15:07 | 0 | Normal | |
| 1323 | CoCoALib-1.0 | New | Improve RealRoots: compute sqfr decomp | 30 Sep 2019 16:14 | 0 | Normal | |
| 1359 | CoCoALib-1.0 | New | gcd: low degree but big coeffs can be slow | 30 Oct 2019 22:23 | 0 | Normal | |
| 1378 | CoCoALib-1.0 | New | Create two separate radical fns (for 0-dim ideals) | 03 Jul 2023 17:49 | 0 | Normal | |
| 1706 | CoCoALib-1.0 | New | slimgb: Brickenstein, singular | 30 Oct 2022 20:30 | 0 | Normal | |
| 1582 | CoCoALib-0.99900 | New | Factorization in $K(a,b)[x,y]$ | 07 Mar 2024 20:23 | 0 | Normal | |
| 1802 | CoCoALib-0.99900 | New | Tidying ideal generators (for non-polynomial ideals) | 25 Mar 2024 19:05 | 0 | Normal | |
| 1255 | CoCoALib-0.99880 | New | Ideals with trivial GBasis | 08 Mar 2023 19:49 | 0 | Normal | |
| 1485 | CoCoALib-0.99880 | New | Simple syntax for making a quotient ring? | 08 Mar 2023 19:51 | 0 | Normal | |
| 1513 | CoCoALib-0.99880 | New | Better test for univariate-ness (and better conversion) | 16 Mar 2024 21:38 | 0 | Normal | |
| 1643 | CoCoALib-0.99880 | New | rref slower than expected (maybe) [[reduced row echelon form]] | 01 Mar 2024 09:54 | 0 | Normal | |
| 1657 | CoCoALib-0.99880 | New | Improve CertifyNotPower | 31 Jan 2024 22:03 | 0 | Normal | |
| 1668 | CoCoALib-0.99880 | New | Generalize prim | 31 Jan 2024 22:03 | 0 | Normal | |
| 1730 | CoCoALib-0.99880 | New | ApplySPRCodomain: relax power/exponent check | 27 Nov 2023 20:30 | 0 | Normal | |
| 1757 | CoCoALib-0.99880 | New | gcd(f,f) is slow | 16 Feb 2024 09:57 | 0 | Normal | |
| 1798 | CoCoALib-0.99880 | New | Computing in sub polyring | 22 Mar 2024 09:30 | 0 | Normal | |
| 775 | CoCoALib-1.0 | New | PPMonoid with 1 extra "exponent"? | 15 Sep 2015 20:18 | 0 | Low | |
| 930 | CoCoALib-1.0 | New | Printing TwinFloat as (rational) coeff without brackets | 24 Sep 2016 21:43 | 0 | Low | |
| 1419 | CoCoALib-1.0 | New | DynamicBitset::lamAll1s | 03 Feb 2021 18:18 | 0 | Low | |
| 1492 | CoCoALib-0.99900 | New | submat of a submat | 16 Feb 2024 17:28 | 0 | Low | |
| 1588 | CoCoALib-0.99900 | New | ElimMat is slow | 22 Mar 2024 09:29 | 0 | Low | |
| 1637 | CoCoALib-0.99900 | New | Intersection of Ideals: has GBasis? | 16 Feb 2024 17:25 | 0 | Low | |
| 1370 | CoCoALib-0.99880 | New | RingID counter increased inside some functions | 31 Jan 2024 22:19 | 0 | Low | |
| 743 | CoCoALib-0.99880 | In Progress | Better errors: give supplementary info about the error | 15 Mar 2024 18:33 | 10 | Urgent | |
| 1667 | CoCoALib-0.99880 | In Progress | GBasis over ZZ: port to CoCoALib | 26 Mar 2024 17:19 | 10 | Urgent | |
| 688 | CoCoALib-1.0 | New | PolyAlgebraHom (PolyRingHom) evaluate multivariate polynomials | 22 Apr 2015 14:38 | 10 | Normal | |
| 1059 | CoCoALib-1.0 | New | Printing ring for ideals (or just for ideals 0 and 1) | 05 May 2017 16:58 | 10 | Normal | |
| 1070 | CoCoALib-1.0 | New | Slug: MakeTermOrd (rk calls in RemoveRedundantRows) | 17 May 2017 13:47 | 10 | Normal | Anna Maria Bigatti |
| 742 | CoCoALib-1.0 | In Progress | View PP exponent vector (and order vector?) as an array of long? | 01 Sep 2015 12:08 | 10 | Normal | |
| 758 | CoCoALib-1.0 | In Progress | configure: have option to say to look for external libs | 03 Sep 2015 11:41 | 10 | Normal | |
| 896 | CoCoALib-1.0 | In Progress | myIsEqual, myCmp: direct comparisons between RingElem and MachineInt, BigInt and BigRat? | 25 Jun 2018 15:31 | 10 | Normal | |
| 968 | CoCoALib-1.0 | In Progress | Slow NF example | 10 Nov 2016 21:33 | 10 | Normal | |

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|------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 970 | CoCoALib-1.0 | In Progress | Weights in ElimMat? | 11 Nov 2016 15:49 | 10 | Normal | |
| 974 | CoCoALib-1.0 | In Progress | QIR/RealRootRefine: improve behaviour if input interval has "nasty" endpoints | 01 Mar 2021 21:25 | 10 | Normal | |
| 1069 | CoCoALib-1.0 | In Progress | GroebnerFan: ERROR: Matrix must be invertible | 17 Dec 2018 15:16 | 10 | Normal | |
| 1117 | CoCoALib-1.0 | In Progress | Better printing of negative coeffs | 23 Sep 2019 11:52 | 10 | Normal | |
| 1130 | CoCoALib-1.0 | In Progress | SqFreeFactor: should it work over ZZ? | 05 Apr 2019 15:39 | 10 | Normal | |
| 1267 | CoCoALib-1.0 | In Progress | Ideal equality | 09 Apr 2019 17:48 | 10 | Normal | |
| 1324 | CoCoALib-1.0 | In Progress | Improve RootBound | 30 Oct 2019 21:44 | 10 | Normal | |
| 1645 | CoCoALib-0.99900 | In Progress | Implement monic0(f) for the case monic(0)? | 16 Feb 2024 09:38 | 10 | Normal | |
| 1682 | CoCoALib-0.99900 | In Progress | swap for new classes | 16 Feb 2024 09:35 | 10 | Normal | |
| 1786 | CoCoALib-0.99900 | New | Add new function for IsInRadical for monomial ideals? (RadicalMembership) | 01 Mar 2024 18:37 | 10 | Normal | Anna Maria Bigatti |
| 1692 | CoCoALib-0.99900 | In Progress | Suggestion: Add "JumpTo" function to prime iterators | 15 Feb 2024 22:39 | 10 | Normal | |
| 710 | CoCoALib-0.99880 | In Progress | Update normaliz interface? | 16 Feb 2024 18:25 | 10 | Normal | |
| 777 | CoCoALib-0.99880 | In Progress | SLUG: elimination | 22 Mar 2024 18:12 | 10 | Normal | Anna Maria Bigatti |
| 1337 | CoCoALib-0.99880 | In Progress | PrimaryDecomposition: a interesting/pathological example | 08 Mar 2023 21:13 | 10 | Normal | Anna Maria Bigatti |
| 1349 | CoCoALib-0.99880 | In Progress | ideal ctor where given gens are a gbasis | 16 Feb 2024 09:52 | 10 | Normal | |
| 1446 | CoCoALib-0.99880 | In Progress | Start using C++14 "move" capability | 08 Mar 2024 18:00 | 10 | Normal | |
| 1559 | CoCoALib-0.99880 | In Progress | Default ctor for rings | 13 Mar 2024 20:42 | 10 | Normal | |
| 1742 | CoCoALib-0.99880 | New | MinGens could be faster | 18 May 2023 13:44 | 10 | Normal | Anna Maria Bigatti |
| 1685 | CoCoALib-0.99880 | In Progress | RingBase::mySwap needed? | 07 Mar 2024 20:49 | 10 | Normal | |
| 839 | CoCoALib-1.0 | In Progress | SparsePolyIter: make more compatible with STL | 07 Mar 2024 20:01 | 10 | Low | |
| 1369 | CoCoALib-1.0 | In Progress | RandomUnimodularMat is slow with many iters | 09 Jan 2020 12:19 | 10 | Low | |
| 1371 | CoCoALib-1.0 | In Progress | French students' example with GFan | 27 Nov 2019 15:53 | 10 | Low | |
| 1118 | CoCoALib-0.99880 | In Progress | SLUG: factorization of x^{9999} | 31 Jan 2024 22:20 | 10 | Low | |
| 1764 | CoCoALib-0.99880 | In Progress | Verbosity messages: avoid printing BIG values | 25 Apr 2024 21:44 | 10 | Low | |
| 780 | CoCoALib-1.0 | In Progress | GroebnerFan/ExternalLib-GFan: improve package | 21 Apr 2017 11:06 | 20 | Normal | Anna Maria Bigatti |
| 797 | CoCoALib-1.0 | In Progress | SmallFpImpl: make it faster | 24 Apr 2024 23:04 | 20 | Normal | John Abbott |
| 846 | CoCoALib-1.0 | In Progress | IsIrred: correct design? | 26 Feb 2019 16:32 | 20 | Normal | John Abbott |
| 874 | CoCoALib-1.0 | In Progress | factor: too slow on largish multivariate poly | 26 Feb 2019 16:29 | 20 | Normal | John Abbott |
| 1518 | CoCoALib-0.99900 | In Progress | SLUG: Printing PPs with many indets | 15 Feb 2024 22:45 | 20 | Normal | |

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|-----------------------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 1417 | CoCoALib-0.99880 | In Progress | RadicalZeroDim with extra parameter for GBasis timeout | 16 Mar 2024 21:42 | 20 | Normal | Anna Maria Bigatti |
| 1576 | CoCoALib-0.99880 | In Progress | cmp for machine integers | 21 Jan 2024 20:23 | 20 | Normal | John Abbott |
| 1642 | CoCoALib-0.99880 | In Progress | interreduce: make monic if over finite field? | 16 Feb 2024 20:44 | 20 | Normal | John Abbott |
| 1737 | CoCoALib-0.99880 | In Progress | Homogenization of an ideal with ZZ ¹ -grading | 01 Feb 2024 19:59 | 20 | Normal | Anna Maria Bigatti |
| 1750 | CoCoALib-0.99880 | In Progress | IdealOfPoints: allow duplicate points? | 08 Mar 2024 18:23 | 20 | Normal | John Abbott |
| 799 | CoCoALib-1.0 | In Progress | vector of "indets" in each PPMonoid? | 11 Nov 2015 13:47 | 20 | Low | John Abbott |
| 872 | CoCoALib-0.99880 | In Progress | LinSolve for matrices over FFp | 08 Mar 2024 17:36 | 30 | Urgent | John Abbott |
| 1103 | CoCoALib-1.0 | In Progress | Pseudo-zero-dim ideals | 05 Nov 2021 16:09 | 30 | Normal | Anna Maria Bigatti |
| 1796 | CoCoALib-0.99880 | New | myFinalizeGBasis ("Final clean up") should be more flexible | 22 Mar 2024 16:19 | 30 | Normal | Anna Maria Bigatti |
| 1280 | CoCoALib-0.99880 | In Progress | Determinant & Inverse of matrix over non integral domain | 21 Jan 2024 19:43 | 40 | High | John Abbott |
| 598 | CoCoALib-0.99880 | In Progress | Syzygy for modules: non-homogeneous module | 27 Mar 2024 17:31 | 40 | Normal | Anna Maria Bigatti |
| 1057 | CoCoALib-0.99880 | In Progress | Slug: Polynomial ring constructor slow with (big) matrix ordering | 22 Mar 2024 09:31 | 50 | High | Anna Maria Bigatti |
| 1756 | CoCoALib-0.99880 | In Progress | deg(f) is slow if f is long | 21 Mar 2024 20:40 | 50 | Normal | John Abbott |
| 1793 | CoCoALib-0.99880 | In Progress | Use ErrorContext instead of string FnName | 26 Mar 2024 11:50 | 60 | Normal | |
| 1733 | CoCoALib-0.99880 | Resolved | FactorINT: funny order | 22 Apr 2024 19:51 | 60 | Low | John Abbott |
| 967 | CoCoALib-0.99880 | Resolved | Improve saturate | 22 Mar 2024 10:18 | 70 | Normal | Anna Maria Bigatti |
| 1572 | CoCoALib-0.99880 | Resolved | Use noexcept | 23 Apr 2024 21:57 | 70 | Normal | John Abbott |
| 1394 | CoCoALib-0.99880 | Resolved | Oddly slow GBasis computation (slow final cleanup) | 16 Apr 2024 22:46 | 70 | Low | Anna Maria Bigatti |
| 1346 | CoCoALib-0.99880 | In Progress | C++14: use the new for loop syntax where appropriate (like cocoa's foreach) | 22 Apr 2024 21:08 | 80 | Normal | |
| 1705 | CoCoALib-0.99880 | In Progress | ProgressReporter: prepare for new loop? | 25 Apr 2024 21:40 | 80 | Normal | John Abbott |
| Makefile (2) | | | | | | | |
| 149 | CoCoALib-1.0 | New | Makefile dependencies | 01 Aug 2014 08:59 | 0 | Normal | |
| 779 | CoCoALib-1.0 | New | Makefile: problem not seeing when files in TmpFactorDir need to be rebuilt | 17 Sep 2015 22:10 | 0 | Low | |
| Maths Bugs (5) | | | | | | | |
| 1026 | CoCoALib-1.0 | New | JanetBasis gives error indet index out of range | 08 Mar 2017 15:26 | 0 | Normal | |
| 1281 | CoCoALib-0.99880 | New | Factor of multivariate sometimes prints ERROR | 21 Jan 2024 20:03 | 10 | High | |

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| 1571 | CoCoALib-0.99880 | New | ker_H needs care | 16 Feb 2024 17:49 | 10 | Normal | Anna Maria Bigatti |
| 1740 | CoCoALib-0.99880 | In Progress | MinGens gives non minimal gens *if some deg=0* | 22 Mar 2024 18:04 | 30 | High | Anna Maria Bigatti |
| 1233 | CoCoALib-0.99880 | Resolved | factor SEGV -- too large characteristic | 14 Mar 2023 19:45 | 60 | High | John Abbott |
| New Function (105) | | | | | | | |
| 145 | CoCoALib-1.0 | New | Buchberger-Moeller: fast modular impl | 10 Jul 2014 14:17 | 0 | Urgent | John Abbott |
| 387 | CoCoALib-1.0 | New | implement algorithm(s) for resolutions | 30 Jul 2014 17:04 | 0 | High | Anna Maria Bigatti |
| 399 | CoCoALib-1.0 | New | add myHilbertSeries member field to ideal and (sub)module | 30 Jul 2014 17:04 | 0 | High | Anna Maria Bigatti |
| 409 | CoCoALib-1.0 | New | Minimal syzygies (optimized implementation) | 31 Jul 2014 12:36 | 0 | High | Anna Maria Bigatti |
| 440 | CoCoALib-1.0 | New | Port RealRoots to C++ | 19 Oct 2016 10:26 | 0 | High | John Abbott |
| 817 | CoCoALib-1.0 | New | GenRepr in CoCoALib? | 17 Nov 2016 14:12 | 0 | High | |
| 123 | CoCoALib-1.0 | New | IdealOfPoints with generic coeffs | 09 Jul 2014 18:15 | 0 | Normal | |
| 129 | CoCoALib-1.0 | New | Better GCD | 09 Jul 2014 18:08 | 0 | Normal | |
| 134 | CoCoALib-1.0 | New | Convenience ring ctors and homs | 11 Jul 2014 12:06 | 0 | Normal | |
| 146 | CoCoALib-1.0 | New | Buchberger-Moeller: input conversions | 10 Jul 2014 14:17 | 0 | Normal | |
| 151 | CoCoALib-1.0 | New | Iterated CanonicalHom | 13 May 2015 09:58 | 0 | Normal | |
| 174 | CoCoALib-1.0 | New | IsStdGraded: add for PPOrdering, PPMonoid, (Sparse)PolyRing.. | 01 Aug 2014 08:59 | 0 | Normal | |
| 227 | CoCoALib-1.0 | New | HilbertBasis from Normaliz: full-lattice or not? | 31 Jul 2014 12:39 | 0 | Normal | |
| 229 | CoCoALib-1.0 | New | Generator for random ring elements | 01 Aug 2014 08:59 | 0 | Normal | |
| 246 | CoCoALib-1.0 | New | Approx QIR | 04 Apr 2014 17:16 | 0 | Normal | |
| 289 | CoCoALib-1.0 | New | PrimeField -- new fn? | 01 Aug 2014 08:59 | 0 | Normal | |
| 337 | CoCoALib-1.0 | New | Module homs | 31 Jul 2014 12:40 | 0 | Normal | |
| 400 | CoCoALib-1.0 | New | add myJBMill member field to ideal | 15 Sep 2014 12:04 | 0 | Normal | |
| 436 | CoCoALib-1.0 | New | Improve UPoly eval at BigRat for binary rational | 01 Aug 2014 08:59 | 0 | Normal | |
| 442 | CoCoALib-1.0 | New | Eigenvectors | 09 Jul 2014 18:05 | 0 | Normal | |
| 515 | CoCoALib-1.0 | New | Fn to "flatten" multiple polynomial extns | 10 Jul 2014 14:22 | 0 | Normal | |
| 570 | CoCoALib-1.0 | New | Allow use of RingElem instead of ring in some functions (e.g. PPM, CoeffRing) | 16 Jul 2014 14:43 | 0 | Normal | |
| 583 | CoCoALib-1.0 | New | New function for printing with extra information | 07 Jul 2014 11:48 | 0 | Normal | |
| 589 | CoCoALib-1.0 | New | Implement gin (generic initial ideal) in cocoalib | 15 Jul 2014 18:17 | 0 | Normal | Anna Maria Bigatti |
| 627 | CoCoALib-1.0 | New | Gaussian integer and rationals ZZi, QQi | 23 Sep 2014 16:30 | 0 | Normal | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|------------------|--------|---|-------------------|--------|----------|--------------------|
| 628 | CoCoALib-1.0 | New | Complex twin-floats | 22 Sep 2014 18:16 | 0 | Normal | |
| 644 | CoCoALib-1.0 | New | Buchberger-Moeller: add option to stop as soon as 1 poly has been found | 06 Nov 2017 13:58 | 0 | Normal | John Abbott |
| 661 | CoCoALib-1.0 | New | Laurent polynomials | 23 Jan 2015 13:50 | 0 | Normal | |
| 667 | CoCoALib-1.0 | New | factor: multivariate + finite characteristic | 04 Mar 2015 20:08 | 0 | Normal | |
| 690 | CoCoALib-1.0 | New | Fault tolerant rational reconstruction: implement simultaneous version | 23 Apr 2015 19:12 | 0 | Normal | |
| 812 | CoCoALib-1.0 | New | PPMonoid pseudo-ctor without explicit ordering | 24 Nov 2015 18:16 | 0 | Normal | |
| 913 | CoCoALib-1.0 | New | Read input from SymbolicData database | 02 Aug 2016 10:55 | 0 | Normal | Anna Maria Bigatti |
| 914 | CoCoALib-1.0 | New | New function: quorem for univariate polynomials? | 22 Aug 2016 16:45 | 0 | Normal | |
| 923 | CoCoALib-1.0 | New | Fn to read symbol range (SymbolRange) | 16 Sep 2016 15:04 | 0 | Normal | |
| 992 | CoCoALib-1.0 | New | Poly ring homomorphism to change ordering | 13 Dec 2016 18:04 | 0 | Normal | |
| 1150 | CoCoALib-1.0 | New | New fn: transform ideal with ring hom | 22 Jun 2020 10:34 | 0 | Normal | |
| 1173 | CoCoALib-1.0 | New | Upper bound for value of poly in an interval | 04 Apr 2018 11:55 | 0 | Normal | |
| 1198 | CoCoALib-1.0 | New | Non-standard DegRevLex (NonStdDegRevLex, WDegRevLex) | 23 Sep 2019 12:44 | 0 | Normal | |
| 1227 | CoCoALib-1.0 | New | exgcd; solve Bezout equation | 29 Aug 2019 14:55 | 0 | Normal | |
| 1278 | CoCoALib-1.0 | New | Port old "clever" code for matrix determinant over ZZ to CoCoALib | 03 May 2019 11:42 | 0 | Normal | |
| 1339 | CoCoALib-1.0 | New | All PPs of given wdeg | 16 Oct 2019 14:04 | 0 | Normal | |
| 949 | CoCoALib-0.99900 | New | New function: IdealWithIncrementalGBasis(l, f) | 16 Feb 2024 18:03 | 0 | Normal | Anna Maria Bigatti |
| 1433 | CoCoALib-0.99900 | New | HilbertDriven Buchberger Algorithm | 16 Feb 2024 18:02 | 0 | Normal | Anna Maria Bigatti |
| 1437 | CoCoALib-0.99900 | New | Filling matrix row/col from a vector | 15 Feb 2024 22:46 | 0 | Normal | |
| 1441 | CoCoALib-0.99900 | New | GFan: port CoCoA_5 functions into CoCoALib | 16 Feb 2024 17:54 | 0 | Normal | Anna Maria Bigatti |
| 1470 | CoCoALib-0.99900 | New | Get indexed indets from a polyring | 07 Mar 2024 20:36 | 0 | Normal | |
| 1785 | CoCoALib-0.99900 | New | Add function IsHomog3(l)? | 01 Mar 2024 14:53 | 0 | Normal | |
| 1797 | CoCoALib-0.99900 | New | Add a function CleanupGens making some easy cleaning on the generators? | 25 Mar 2024 19:16 | 0 | Normal | |
| 801 | CoCoALib-0.99880 | New | Test whether a symbol is in a ring | 07 Mar 2024 21:36 | 0 | Normal | |
| 1132 | CoCoALib-0.99880 | New | Canonical homomorphism for (some) polynomial rings? | 08 Mar 2024 18:01 | 0 | Normal | Anna Maria Bigatti |
| 1207 | CoCoALib-0.99880 | New | New function: SubmoduleOfGBasis | 18 Mar 2024 09:33 | 0 | Normal | |
| 1254 | CoCoALib-0.99880 | New | New function: MinPoly for pseudo-zero-dimensional ideals | 07 Mar 2024 20:25 | 0 | Normal | Anna Maria Bigatti |
| 1444 | CoCoALib-0.99880 | New | HNF: Hermite Normal Form | 16 Feb 2024 09:53 | 0 | Normal | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|--------------------|-------------|--|-------------------|--------|----------|--------------------|
| 1743 | CoCoALib-0.99880 | New | Implement Truncated GBases for homogeneous input | 19 May 2023 15:42 | 0 | Normal | Anna Maria Bigatti |
| 459 | CoCoALib-1.0 | New | LinearSimplify: port to CoCoALib | 20 May 2014 09:47 | 0 | Low | |
| 539 | CoCoALib-1.0 | New | Functions to clean up a factorization | 22 Jan 2024 20:28 | 0 | Low | |
| 1602 | CoCoALib-0.99900 | New | Sparse matrix (SparseMat) | 15 Feb 2024 22:42 | 0 | Low | |
| 1715 | CoCoALib-0.99880 | New | ProductBigInt (also ProductBigRat???) | 23 Jan 2024 22:14 | 0 | Low | |
| 386 | CoCoALib-1.0 | In Progress | add resolution data type | 11 Jun 2015 14:58 | 10 | High | Anna Maria Bigatti |
| 513 | CoCoALib-1.0 | In Progress | Quick/correct flag for bool3 fns | 10 Jul 2014 16:30 | 10 | High | |
| 1001 | removed/duplicates | In Progress | CoCoALib: ideas for student projects | 18 Feb 2022 16:57 | 10 | Normal | |
| 113 | CoCoALib-1.0 | In Progress | Introduce PartialHom | 09 Jul 2014 18:04 | 10 | Normal | John Abbott |
| 651 | CoCoALib-1.0 | In Progress | Optimized algorithms for implicitization (slicing algorithm, elim, subalgebra..) | 12 Feb 2015 10:33 | 10 | Normal | |
| 665 | CoCoALib-1.0 | In Progress | Integrate Janet/Pommaret basis code | 12 Jun 2018 18:36 | 10 | Normal | John Abbott |
| 703 | CoCoALib-1.0 | New | Add more operations between modules (CoCoALib) | 27 Oct 2017 11:53 | 10 | Normal | Anna Maria Bigatti |
| 728 | CoCoALib-1.0 | In Progress | Noncommutative algebra "of solvable type" | 09 Jul 2015 08:39 | 10 | Normal | |
| 738 | CoCoALib-1.0 | In Progress | Extend homomorphism to polynomial ring | 25 Jun 2015 17:23 | 10 | Normal | |
| 803 | CoCoALib-1.0 | In Progress | PPOrdering: use it to compute WDeg? | 06 Nov 2017 14:00 | 10 | Normal | |
| 838 | CoCoALib-1.0 | In Progress | Differential algebra | 24 Oct 2016 15:32 | 10 | Normal | |
| 840 | CoCoALib-1.0 | In Progress | GINV: alex basis | 31 Mar 2016 13:05 | 10 | Normal | |
| 873 | CoCoALib-1.0 | In Progress | bool3: add some logical operations? | 21 Jun 2016 14:37 | 10 | Normal | |
| 885 | CoCoALib-1.0 | In Progress | IsIrred3: fast 3-way irred test (returning bool3) | 30 Apr 2019 17:19 | 10 | Normal | |
| 937 | CoCoALib-1.0 | In Progress | LinDepMill: Mill for linear dependencies | 18 Apr 2024 16:38 | 10 | Normal | Anna Maria Bigatti |
| 1468 | CoCoALib-0.99900 | In Progress | Adjoin indets to a poly ring | 15 Feb 2024 22:45 | 10 | Normal | |
| 1482 | CoCoALib-0.99900 | In Progress | Extended rationals: PlusInfinity and MinusInfinity | 16 Feb 2024 18:02 | 10 | Normal | |
| 1532 | CoCoALib-0.99900 | In Progress | Convenient RingHom pseudo-ctors | 07 Mar 2024 21:34 | 10 | Normal | |
| 947 | CoCoALib-0.99880 | In Progress | IsRadical for ideal? | 23 Jan 2024 22:13 | 10 | Normal | |
| 1635 | CoCoALib-0.99880 | In Progress | NR for polys with coeffs in PID | 16 Feb 2024 09:39 | 10 | Normal | |
| 1778 | CoCoALib-0.99880 | In Progress | Homogenizer | 25 Apr 2024 21:54 | 10 | Normal | |
| 1808 | CoCoALib-0.99880 | In Progress | New constructor for PolyRing with elimination ordering | 28 Mar 2024 07:35 | 10 | Normal | Anna Maria Bigatti |
| 1472 | CoCoALib-0.99900 | In Progress | Idea for for loops | 16 Feb 2024 09:55 | 10 | Low | |
| 1652 | CoCoALib-0.99900 | In Progress | Add LM to cocoalib ? | 15 Feb 2024 22:41 | 10 | Low | |
| 147 | CoCoALib-1.0 | In Progress | Buchberger-Moeller: impl via modular reduction | 10 Jul 2014 14:18 | 20 | Urgent | John Abbott |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|------------------|-------------|---|-------------------|--------|-----------|--------------------|
| 898 | CoCoALib-0.99880 | In Progress | New function: cardinality of finite field? | 08 Mar 2024 17:45 | 20 | High | Anna Maria Bigatti |
| 565 | CoCoALib-1.0 | In Progress | FloatApprox for TwinFloat values? | 19 Jul 2016 22:44 | 20 | Normal | John Abbott |
| 620 | CoCoALib-1.0 | In Progress | Redesign CRTMill | 21 Mar 2016 14:30 | 20 | Normal | John Abbott |
| 1022 | CoCoALib-1.0 | New | New "LF" function which is based on StdDeg | 06 Mar 2017 19:37 | 20 | Normal | |
| 678 | CoCoALib-1.0 | In Progress | Accumulator (like a geobucket) | 17 Nov 2016 19:03 | 20 | Normal | |
| 828 | CoCoALib-1.0 | In Progress | MachineInt: function for checking that value is greater than some lower limit (and below MAXLONG) | 15 Apr 2024 10:08 | 20 | Normal | John Abbott |
| 1282 | CoCoALib-0.99900 | New | subresultant | 08 Mar 2024 17:54 | 20 | Normal | |
| 1306 | CoCoALib-0.99880 | In Progress | exgcd over integers (ZZ) | 08 Mar 2024 17:57 | 20 | Normal | |
| 206 | CoCoALib-0.99880 | In Progress | Matrix equation solving: LinKer | 22 Mar 2024 09:42 | 30 | Urgent | |
| 313 | CoCoALib-0.99880 | In Progress | Elim(vector<long>) as PPOrderingCtor | 22 Mar 2024 18:17 | 30 | High | Anna Maria Bigatti |
| 297 | CoCoALib-1.0 | In Progress | Modules design: brainstorming | 31 Jul 2014 14:55 | 30 | Normal | |
| 143 | CoCoALib-1.0 | In Progress | Buchberger-Moeller (parent task) | 10 Jul 2014 14:16 | 38 | Urgent | John Abbott |
| 1197 | CoCoALib-0.99880 | In Progress | IsZeroDet: new fn | 08 Mar 2024 17:58 | 40 | Normal | John Abbott |
| 802 | CoCoALib-0.99880 | In Progress | DivMask: extend interface? | 08 Mar 2024 17:36 | 50 | Urgent | John Abbott |
| 127 | CoCoALib-1.0 | In Progress | Convert DUPFF code to C++ | 28 Sep 2022 15:04 | 50 | Normal | John Abbott |
| 125 | CoCoALib-0.99880 | In Progress | Matrix equation solving; linear system solving | 18 Mar 2024 10:00 | 50 | Normal | John Abbott |
| 1094 | CoCoALib-0.99880 | In Progress | Revive code for SelfSaturating GBasis | 22 Mar 2024 14:38 | 50 | Normal | Anna Maria Bigatti |
| 1176 | CoCoALib-0.99880 | In Progress | interval arithmetic | 10 Mar 2023 17:46 | 50 | Normal | John Abbott |
| 383 | CoCoALib-1.0 | In Progress | Resolution/morse: integrate Mario Albert's code into CoCoALib | 31 Jul 2014 14:57 | 60 | Normal | John Abbott |
| 664 | CoCoALib-0.99880 | Resolved | Impl small non-prime finite fields (using logs) | 14 Mar 2023 19:49 | 80 | Urgent | John Abbott |
| 958 | CoCoALib-0.99880 | Resolved | New function: multiplicity and dim | 08 Mar 2024 18:15 | 80 | Normal | Anna Maria Bigatti |
| 813 | CoCoALib-0.99880 | Feedback | Implement "elim" in CoCoALib | 18 Mar 2024 15:58 | 90 | Immediate | Anna Maria Bigatti |

Portability (17)

| | | | | | | | |
|------|------------------|-----|---|-------------------|---|--------|-------------|
| 1010 | CoCoALib-1.0 | New | C++11: Mario's Hilbert scheme code | 20 Feb 2017 13:19 | 0 | Urgent | |
| 617 | CoCoALib-1.0 | New | configure: check all libraries for compatibility | 09 Sep 2014 12:21 | 0 | Normal | |
| 752 | CoCoALib-1.0 | New | Investigate using Boost.build instead of make | 28 Apr 2017 11:23 | 0 | Normal | John Abbott |
| 906 | CoCoALib-1.0 | New | External libraries: keep copy of compatible versions? | 13 Jul 2016 11:19 | 0 | Normal | |
| 1632 | CoCoALib-1.0 | New | C++17: notes about updating | 12 Nov 2021 18:11 | 0 | Normal | |
| 1630 | CoCoALib-0.99900 | New | Signal handler not portable? | 15 Feb 2024 22:42 | 0 | Normal | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|---------------------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 1670 | CoCoALib-0.99880 | New | Build also dynamic/shared library for CoCoALib? | 07 Mar 2024 21:33 | 0 | Normal | |
| 326 | CoCoALib-1.0 | In Progress | C++ nasty surprises | 07 Apr 2014 18:13 | 10 | Normal | |
| 575 | CoCoALib-1.0 | In Progress | Investigate using cmake for configuration | 13 Mar 2024 21:19 | 10 | Normal | John Abbott |
| 763 | CoCoALib-1.0 | In Progress | GlobalManager: initialization compatible with initialization of external libs | 21 Mar 2016 16:55 | 10 | Normal | |
| 765 | CoCoALib-1.0 | In Progress | ExternalLib-CDD: (needed by GFan) | 11 Sep 2019 13:47 | 10 | Normal | Anna Maria Bigatti |
| 933 | CoCoALib-0.99880 | In Progress | Separate configure scripts for CoCoALib and CoCoA-5 | 23 Jan 2024 21:52 | 10 | Normal | John Abbott |
| 1699 | CoCoALib-0.99880 | In Progress | Shell scripts: Shebang line, etc | 16 Feb 2024 10:01 | 10 | Normal | |
| 1225 | CoCoALib-0.99900 | In Progress | Move to C++14 (skipping C++11) | 08 Mar 2024 17:46 | 30 | High | |
| 591 | CoCoALib-1.0 | In Progress | Problem with template instantiation and order of include directives | 09 Feb 2024 10:18 | 50 | Low | |
| 302 | CoCoALib-1.0 | In Progress | Compilation on M\$Windows: Visual Studio | 22 Mar 2024 23:13 | 60 | Normal | |
| 1804 | CoCoALib-0.99900 | In Progress | Use long long (at least sometimes)? | 26 Apr 2024 21:09 | 80 | Normal | John Abbott |
| Renaming (6) | | | | | | | |
| 1807 | CoCoALib-0.99880 | New | Error codes: "Not..." for "blah must be ..." -- change prefix | 26 Mar 2024 14:22 | 0 | Normal | |
| 1193 | CoCoALib-0.99880 | New | Naming convention mistakes | 08 Mar 2023 20:52 | 0 | Low | |
| 150 | CoCoALib-1.0 | In Progress | RingOf rather than owner? (and than AmbientRing, ...) | 30 Jul 2014 17:59 | 10 | Normal | |
| 1013 | CoCoALib-1.0 | New | GlobalManager: name of object in examples (and tests) | 25 Feb 2017 11:11 | 10 | Normal | |
| 942 | CoCoALib-0.99900 | In Progress | Which names to use? Intersection/saturation vs intersect/saturate | 22 Mar 2024 10:20 | 20 | Normal | |
| 308 | CoCoALib-0.99880 | In Progress | Error: ERR::NotNonZero instead of ERR::ZeroRingElem? | 27 Mar 2024 17:37 | 40 | High | |
| Safety (25) | | | | | | | |
| 497 | CoCoALib-1.0 | New | Clang: automatic bug finding | 04 Apr 2014 17:20 | 0 | Normal | |
| 551 | CoCoALib-1.0 | New | Reconsider overloaded virtual mem fns | 09 Jul 2014 18:00 | 0 | Normal | |
| 562 | CoCoALib-1.0 | New | Subrings | 29 Sep 2020 13:19 | 0 | Normal | |
| 647 | CoCoALib-1.0 | New | Unique copies of free modules? | 10 Nov 2014 16:55 | 0 | Normal | |
| 787 | CoCoALib-1.0 | New | Remove refcounts from RingElem? | 19 Oct 2015 17:08 | 0 | Normal | |
| 835 | CoCoALib-1.0 | New | Make Mario's new code threadsafe | 09 Dec 2015 16:48 | 0 | Normal | |
| 1208 | CoCoALib-1.0 | New | New function: Threadsafe RandomLinearForm (CoCoALib) | 01 Oct 2019 11:28 | 0 | Normal | |
| 1691 | CoCoALib-0.99900 | New | Random and threadsafe? | 15 Feb 2024 22:38 | 0 | Normal | |
| 1388 | CoCoALib-0.99880 | New | GlobalManager: create SignalWatcher internally? | 01 Mar 2024 09:49 | 0 | Normal | |
| 1575 | CoCoALib-0.99880 | New | DynamicBitset missing arg checks | 16 Feb 2024 09:46 | 0 | Normal | Anna Maria Bigatti |
| 639 | CoCoALib-1.0 | New | Shadow CoCoA namespace to help guarantee portability (without ambiguity) | 28 Oct 2014 15:34 | 0 | Low | |
| 682 | CoCoALib-1.0 | New | PPMonoid: add fn to check for overflow in products | 14 Apr 2015 11:23 | 0 | Low | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|------------------|-------------|--|-------------------|--------|----------|--------------------|
| 482 | CoCoALib-1.0 | In Progress | Unique copies of rings -- smart ctor | 20 Oct 2015 14:33 | 10 | Normal | |
| 784 | CoCoALib-1.0 | In Progress | threadsafety: Scott Meyers's advice about cached values | 18 Jan 2016 18:12 | 10 | Normal | |
| 1813 | CoCoALib-0.99900 | In Progress | Some tests have become slower | 07 Apr 2024 21:53 | 10 | Normal | |
| 1600 | CoCoALib-0.99880 | In Progress | Detect updated versions of external libs | 16 Feb 2024 10:02 | 10 | Normal | |
| 1678 | CoCoALib-0.99880 | In Progress | Unsigned long for indexes (& sizes?) | 07 Mar 2024 20:25 | 10 | Normal | |
| 986 | CoCoALib-1.0 | In Progress | GFan: require version newer than 0.6 | 22 Apr 2024 20:06 | 10 | Low | |
| 1814 | CoCoALib-0.99900 | In Progress | Ensure tests do not need too much RAM | 23 Apr 2024 22:14 | 30 | Normal | |
| 894 | CoCoALib-0.99880 | In Progress | strict enum types: C++11 extension | 25 Apr 2024 21:49 | 30 | Normal | John Abbott |
| 934 | CoCoALib-0.99880 | In Progress | MachineInt: change semantics? | 22 Apr 2024 21:32 | 30 | Normal | |
| 142 | CoCoALib-0.99880 | In Progress | Improve threadsafety | 21 Mar 2024 20:29 | 50 | Normal | |
| 707 | CoCoALib-0.99880 | In Progress | MatrixOrderingMod32749Impl: test and write documentation! | 25 Apr 2024 21:46 | 50 | Normal | Anna Maria Bigatti |
| 925 | CoCoALib-0.99880 | In Progress | MachineInt or long for args which are indices (yet again) | 16 Apr 2024 22:29 | 50 | Normal | |
| 1703 | CoCoALib-0.99880 | Resolved | Threadsafety, multithreading: optional fn arg (or separate fn) | 07 Mar 2024 20:04 | 80 | Normal | John Abbott |

Tidying (62)

| | | | | | | | |
|------|--------------|-------------|--|-------------------|---|--------|--------------------|
| 263 | CoCoALib-1.0 | New | Move the various <matrix>::mySetEntry procedures into MatrixBase | 01 Aug 2014 16:29 | 0 | High | |
| 685 | CoCoALib-1.0 | New | Use DivMask inside QBGenerator | 02 Feb 2016 14:16 | 0 | High | |
| 272 | CoCoALib-1.0 | New | Forward declarations | 07 Apr 2014 18:14 | 0 | Normal | |
| 516 | CoCoALib-1.0 | New | Make squarefreefactor work in multiple polynomial extns | 10 Jul 2014 14:21 | 0 | Normal | |
| 572 | CoCoALib-1.0 | New | Split SparsePolyRing.H into two files? Problem with circular includes. | 17 May 2018 16:36 | 0 | Normal | |
| 640 | CoCoALib-1.0 | New | What is test-Dynamic1.C | 29 Oct 2014 11:30 | 0 | Normal | |
| 316 | CoCoALib-1.0 | In Progress | submodule constructor different from ideal | 10 Jul 2014 16:21 | 0 | Normal | Anna Maria Bigatti |
| 695 | CoCoALib-1.0 | New | Remove cruft from test files | 08 May 2015 11:37 | 0 | Normal | |
| 791 | CoCoALib-1.0 | New | Clean code for DistrMPolyClean | 02 Nov 2015 22:13 | 0 | Normal | Anna Maria Bigatti |
| 808 | CoCoALib-1.0 | New | Alg Extn by non-zero dim ideal | 18 Nov 2015 23:29 | 0 | Normal | |
| 809 | CoCoALib-1.0 | New | FastCmp for degree -- useful? | 27 Nov 2015 16:06 | 0 | Normal | Anna Maria Bigatti |
| 1098 | CoCoALib-1.0 | New | Ctors for exceptions/errors | 06 Sep 2017 15:27 | 0 | Normal | |
| 778 | CoCoALib-1.0 | In Progress | CRTMill::myAddInfo accept modulus 1 or not? | 21 Mar 2016 15:16 | 0 | Normal | |
| 1147 | CoCoALib-1.0 | New | mySquare and myPowerSmallExp | 30 Apr 2019 17:18 | 0 | Normal | |
| 1160 | CoCoALib-1.0 | New | Clean up revised RatReconstructByContFrac code | 26 Feb 2019 16:33 | 0 | Normal | John Abbott |
| 1491 | CoCoALib-1.0 | New | Unified Gaussian reduction impl | 08 Mar 2023 19:55 | 0 | Normal | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|------------------|-------------|--|-------------------|--------|----------|--------------------|
| 1799 | CoCoALib-1.0 | New | Clean out OLD CODE? | 24 Mar 2024 10:52 | 0 | Normal | |
| 1213 | CoCoALib-0.99900 | New | Create PolyOps-RingElem? | 16 Feb 2024 09:48 | 0 | Normal | |
| 1125 | CoCoALib-0.99880 | New | Separate install script for CoCoALib? | 23 Jan 2024 21:54 | 0 | Normal | John Abbott |
| 1355 | CoCoALib-0.99880 | New | TmpLDP uses srand and time | 01 Mar 2024 09:50 | 0 | Normal | |
| 1428 | CoCoALib-0.99880 | New | DenseMatrix: use template impl for ctors from vec-vec? | 07 Mar 2024 20:49 | 0 | Normal | |
| 1464 | CoCoALib-0.99880 | New | What is the difference between InterruptReceived and InterruptedBySignal | 01 Mar 2024 09:54 | 0 | Normal | |
| 1562 | CoCoALib-0.99880 | New | matrix.H and MatrixView.H | 08 Mar 2023 19:56 | 0 | Normal | |
| 1669 | CoCoALib-0.99880 | New | Review File subtree hierarchy | 08 Mar 2023 19:56 | 0 | Normal | |
| 1704 | CoCoALib-0.99880 | New | Symlink directory for external files needed by CoCoA-5 | 18 Mar 2024 09:29 | 0 | Normal | Anna Maria Bigatti |
| 1727 | CoCoALib-0.99880 | New | Cruft in ExtLibs-Normaliz.C | 13 Mar 2023 19:01 | 0 | Normal | |
| 1736 | CoCoALib-0.99880 | New | Clean TmpGOperations, and remove Tmp prefix | 28 Apr 2023 16:01 | 0 | Normal | |
| 1782 | CoCoALib-0.99880 | New | Make CoCoALib test file for radical | 01 Mar 2024 09:44 | 0 | Normal | Anna Maria Bigatti |
| 1792 | CoCoALib-0.99880 | New | CpuTimeOut: arg of type ErrorContext? | 18 Mar 2024 20:50 | 0 | Normal | |
| 537 | CoCoALib-1.0 | New | FloatStr uses too much memory | 16 Apr 2014 12:01 | 0 | Low | |
| 833 | CoCoALib-1.0 | New | UIBC: need include file in RingWeyl.C | 08 Dec 2015 15:06 | 0 | Low | |
| 1609 | CoCoALib-0.99880 | New | Clean time.C | 08 Mar 2023 19:54 | 0 | Low | |
| 87 | CoCoALib-1.0 | New | Cleanup header for ring classes (so that they are e-diff-able) | 10 Jul 2014 16:26 | 10 | Normal | Anna Maria Bigatti |
| 114 | CoCoALib-1.0 | In Progress | Ideals of polynomials | 10 Jul 2014 14:26 | 10 | Normal | |
| 305 | CoCoALib-1.0 | In Progress | FreeModule: unique copy? | 10 Dec 2023 20:43 | 10 | Normal | |
| 437 | CoCoALib-1.0 | In Progress | MemPool: order free blocks? | 13 Apr 2015 23:31 | 10 | Normal | |
| 675 | CoCoALib-1.0 | In Progress | Matrix determinant over multivariate poly ring | 22 May 2015 13:45 | 10 | Normal | |
| 818 | CoCoALib-1.0 | In Progress | F5 with 3 args? | 24 Nov 2015 10:11 | 10 | Normal | John Abbott |
| 841 | CoCoALib-1.0 | In Progress | NewPolyRing: tidy up the many different versions | 01 Sep 2017 11:30 | 10 | Normal | |
| 1666 | CoCoALib-0.99900 | In Progress | MachineInt: chase through ULL changes | 16 Apr 2024 22:40 | 10 | Normal | |
| 1783 | CoCoALib-0.99900 | In Progress | Code & doc structure: one-big-file or many-small-files? | 24 Feb 2024 18:34 | 10 | Normal | |
| 601 | CoCoALib-0.99880 | In Progress | LongRange: in which file should it be declared/defined? | 08 Mar 2023 20:45 | 10 | Normal | |
| 849 | CoCoALib-0.99880 | In Progress | Cleanup MinPoly code | 08 Mar 2024 18:15 | 10 | Normal | Anna Maria Bigatti |
| 1465 | CoCoALib-0.99880 | In Progress | mul(MAT,MAT,MAT) | 16 Feb 2024 10:04 | 10 | Normal | |
| 1628 | CoCoALib-0.99880 | In Progress | Unused variables, params, data members | 11 Mar 2023 12:29 | 10 | Normal | |
| 1677 | CoCoALib-0.99880 | In Progress | release-source script: use shell globbing? | 16 Feb 2024 10:01 | 10 | Normal | |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|---------------------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 1800 | CoCoALib-0.99880 | In Progress | Conversion from SmallPrime to UNSIGNED long? | 15 Apr 2024 10:09 | 10 | Normal | |
| 1801 | CoCoALib-0.99880 | In Progress | BuildInfo | 13 Apr 2024 22:18 | 10 | Normal | |
| 1014 | CoCoALib-1.0 | In Progress | RowMat, ColMat with arg an empty list/vector | 24 Feb 2017 17:54 | 10 | Low | |
| 1702 | CoCoALib-0.99900 | In Progress | Use C++ attributes | 22 Apr 2024 21:26 | 10 | Low | |
| 154 | CoCoALib-1.0 | In Progress | GCD normalization (e.g. monic) | 24 Nov 2016 13:56 | 20 | Normal | |
| 686 | CoCoALib-1.0 | New | myAddMul in poly rings | 20 Apr 2015 13:22 | 20 | Normal | Anna Maria Bigatti |
| 866 | CoCoALib-0.99880 | In Progress | implicit, ImplicitHypersurface: improve output verification | 22 Mar 2024 09:43 | 20 | Normal | |
| 1179 | CoCoALib-0.99880 | In Progress | Clean up SparsePolyOps-MonomialIdeals | 22 Mar 2024 09:33 | 20 | Normal | Anna Maria Bigatti |
| 1720 | CoCoALib-0.99880 | New | DivAlg in CoCoALib | 25 Mar 2024 17:55 | 20 | Normal | Anna Maria Bigatti |
| 582 | CoCoALib-0.99880 | New | Error codes: use same code for "not poly ring" and "not elem poly ring" | 26 Mar 2024 14:36 | 30 | Normal | |
| 1787 | CoCoALib-0.99880 | In Progress | Iterator design: compatible with C++STL? Advancing beyond end? | 23 Apr 2024 22:26 | 30 | Normal | John Abbott |
| 385 | CoCoALib-0.99900 | In Progress | Design new errors using inheritance | 09 Feb 2024 10:25 | 40 | Urgent | John Abbott |
| 1242 | CoCoALib-0.99880 | In Progress | C++14: Use type auto where appropriate | 22 Apr 2024 21:08 | 40 | Normal | |
| 680 | CoCoALib-0.99880 | Resolved | DistrMPolyClean does not use MemPool for summands? | 07 Mar 2023 20:49 | 70 | Normal | John Abbott |
| 1263 | CoCoALib-0.99880 | Resolved | Tidy CoCoALib test directory | 07 Mar 2023 20:49 | 80 | Normal | John Abbott |
| 1811 | CoCoALib-0.99880 | Feedback | Check include guards | 22 Apr 2024 20:15 | 90 | Normal | John Abbott |
| Various (25) | | | | | | | |
| 120 | CoCoALib-1.0 | New | LT over QQ: surprisingly slow | 10 Jul 2014 16:26 | 0 | Normal | |
| 232 | CoCoALib-1.0 | New | No test for QBGenerator | 15 Apr 2015 20:15 | 0 | Normal | |
| 360 | CoCoALib-1.0 | New | CoCoAServer: what future, what issues? | 28 Apr 2017 11:19 | 0 | Normal | |
| 401 | CoCoALib-1.0 | New | NewFreeModule of dimension 0 | 31 Jul 2014 14:13 | 0 | Normal | |
| 455 | CoCoALib-1.0 | New | Which sets of generators in an ideal? | 14 Jul 2014 15:17 | 0 | Normal | |
| 547 | CoCoALib-1.0 | New | elim using RingTwinFloat triggers error "SERIOUS" | 15 Jun 2016 14:35 | 0 | Normal | |
| 564 | CoCoALib-1.0 | New | Temporary file for experimentation | 16 Jul 2014 14:38 | 0 | Normal | |
| 92 | CoCoALib-1.0 | In Progress | Error Codes | 19 Apr 2017 08:31 | 0 | Normal | |
| 725 | CoCoALib-1.0 | New | Example database: Slow ideal equality test | 10 Jun 2015 14:24 | 0 | Normal | |
| 746 | CoCoALib-1.0 | New | Problem with GBasis in tower of alg extns | 21 Mar 2016 14:29 | 0 | Normal | |
| 1810 | CoCoALib-0.99900 | New | Release CoCoALib 0.99900 | 29 Mar 2024 09:00 | 0 | Normal | |
| 262 | CoCoALib-0.99880 | New | Play with GIT | 08 Mar 2023 19:54 | 0 | Normal | |
| 1521 | CoCoALib-0.99880 | New | Unexpectedly slow example with larger types for SmallExponent_t | 08 Mar 2023 19:54 | 0 | Normal | |
| 1748 | CoCoALib-0.99880 | New | July 2023 | 08 Mar 2024 08:29 | 0 | Normal | John Abbott |

| # | Target version | Status | Subject | Updated | % Done | Priority | Assignee |
|------|------------------|-------------|---|-------------------|--------|----------|--------------------|
| 1777 | CoCoALib-0.99880 | New | VerificationLevel: just 3? Low, high, guaranteed? | 16 Feb 2024 10:00 | 0 | Normal | |
| 681 | CoCoALib-1.0 | New | MemPool: make it easier to get just stats | 13 Apr 2015 23:25 | 0 | Low | |
| 74 | CoCoALib-1.0 | New | printing polynomials | 14 Jul 2014 11:07 | 10 | Normal | |
| 432 | CoCoALib-1.0 | In Progress | Semantics of IsPrintedWithMinus | 14 Jul 2014 18:13 | 10 | Normal | |
| 438 | CoCoALib-1.0 | In Progress | Polynomial multiplication (product of RingElem) | 10 Jul 2014 16:28 | 10 | Normal | |
| 1089 | CoCoALib-1.0 | In Progress | invalid pointer in "free" | 20 Jul 2017 13:06 | 10 | Normal | John Abbott |
| 1049 | CoCoALib-1.0 | In Progress | GroebnerFan: slow examples | 11 Mar 2024 11:12 | 10 | Low | |
| 222 | CoCoALib-0.99880 | In Progress | Printing polynomials - spaces between terms | 14 Mar 2023 21:27 | 30 | Normal | |
| 1542 | CoCoALib-0.99880 | In Progress | gfan does not "deinitialize" | 08 Mar 2023 19:53 | 30 | Normal | |
| 1687 | CoCoALib-0.99850 | In Progress | Release CoCoALib 0.99850 | 29 Mar 2024 10:42 | 50 | Normal | Anna Maria Bigatti |
| 1711 | CoCoALib-0.99880 | Feedback | Development releases? | 09 Mar 2023 20:56 | 90 | Normal | Anna Maria Bigatti |