

## CoCoALib - Issues

| #    | Project  | Parent task | Priority  | Subject   | Assignee           | Updated           | Category        | % Done |
|------|----------|-------------|-----------|---|--------------------|-------------------|-----------------|--------|
| 1144 | CoCoALib |             | Normal    | File names, coding conventions: Fns, Ops, Operations? part 1                              |                    | 19 Dec 2017 07:44 | Renaming        | 100    |
| 827  | CoCoALib |             | Immediate | NewPositiveMat also for matrices over QQ? Also NewIntegerOrdMat. (now called MakeTermOrd) |                    | 20 Jan 2017 14:26 | Tidying         | 100    |
| 1721 | CoCoALib |             | Normal    | Verbose messages: print level?  | Anna Maria Bigatti | 12 Apr 2023 14:56 | Improving       | 100    |
| 1649 | CoCoALib |             | Normal    | Add file SparsePolyOps-vector.C   | Anna Maria Bigatti | 25 Mar 2024 17:49 | Tidying         | 100    |
| 1647 | CoCoALib |             | Normal    | Suppress zero from ideal generators? Detect 1 and simplify generators?                    | Anna Maria Bigatti | 25 Mar 2024 19:02 | Data Structures | 100    |
| 1409 | CoCoALib |             | Normal    | myTestIsPrimary & Co. : fix design  | Anna Maria Bigatti | 30 Apr 2020 14:20 | Safety          | 100    |
| 1391 | CoCoALib |             | Normal    | RingElems: syntax with [ and ] ?  | Anna Maria Bigatti | 08 Jan 2021 13:03 | Improving       | 100    |
| 1336 | CoCoALib |             | Normal    | Rename SparsePolyOps-MonomialIdeal into SparsePolyOps-IdealMonomial?                      | Anna Maria Bigatti | 15 Oct 2019 17:33 | Renaming        | 100    |
| 1326 | CoCoALib |             | Normal    | Modify function myElim so that it returns ideal? (not quite)                              | Anna Maria Bigatti | 18 Mar 2024 16:03 | Tidying         | 100    |
| 1177 | CoCoALib |             | Normal    | File names: use "SparsePolyOps" prefix for pertinent files                                | Anna Maria Bigatti | 03 Aug 2018 16:18 | Various         | 100    |
| 1163 | CoCoALib |             | Normal    | Split SparsePolyRing.C in smaller files   | Anna Maria Bigatti | 02 Aug 2018 17:04 | Renaming        | 100    |
| 1124 | CoCoALib |             | Normal    | Move examples directory into doc -- or just change makefile?                              | Anna Maria Bigatti | 03 Aug 2018 17:04 | Documentation   | 100    |
| 1063 | CoCoALib |             | Normal    | Catching an (expected) error  | Anna Maria Bigatti | 08 Nov 2017 14:24 | Documentation   | 100    |
| 908  | CoCoALib |             | High      | Sum of ideals: what are the generators of $(x) + (0)$ ?                                   | Anna Maria Bigatti | 08 Mar 2024 14:34 | Improving       | 100    |
| 854  | CoCoALib |             | Normal    | Function MakeTermOrd should be renamed MakeTermOrdMat?                                    | Anna Maria Bigatti | 28 Mar 2024 16:25 | Renaming        | 100    |
| 822  | CoCoALib |             | High      | Should ElimMat return a ConstMatrix   | Anna Maria Bigatti | 28 Apr 2017 15:16 | Tidying         | 100    |
| 819  | CoCoALib |             | Normal    | GradingMat: does anyone need it?  | Anna Maria Bigatti | 24 Mar 2016 11:58 | Tidying         | 100    |
| 786  | CoCoALib |             | Normal    | MemPool: review min and max loaf sizes  | Anna Maria Bigatti | 16 Sep 2021 13:38 | Improving       | 100    |
| 764  | CoCoALib |             | Normal    | ExternalLib: simplify configuration   | Anna Maria Bigatti | 03 Aug 2018 17:33 | Improving       | 100    |
| 683  | CoCoALib |             | Normal    | Module index component in internal compressed representation                              | Anna Maria Bigatti | 15 Dec 2017 16:37 | Documentation   | 100    |
| 641  | CoCoALib |             | Normal    | Clean test-FreeModule1  | Anna Maria Bigatti | 26 Jun 2015 16:58 | Tidying         | 100    |
| 1771 | CoCoALib |             | Normal    | Hadamard bound: field names   | John Abbott        | 22 Dec 2023 21:31 | Renaming        | 100    |
| 1768 | CoCoALib |             | Normal    | Limit indentation in verbose mesgs?   | John Abbott        | 22 Jan 2024 10:36 | Improving       | 100    |
| 1753 | CoCoALib |             | Normal    | Clean up EulerTotient, InvTotient jungle in NumTheory-misc                                | John Abbott        | 29 Mar 2024 08:25 | Tidying         | 100    |
| 1735 | CoCoALib |             | Normal    | PushFront/PushBack without checks?  | John Abbott        | 08 Mar 2024 14:38 | Improving       | 100    |
| 1716 | CoCoALib |             | Normal    | Qn: factor for BigInt   | John Abbott        | 14 Mar 2023 21:32 | Improving       | 100    |
| 1693 | CoCoALib |             | Normal    | SizeInBase: obsolete  | John Abbott        | 07 Oct 2022 15:25 | Tidying         | 100    |
| 1689 | CoCoALib |             | Normal    | Automatic mapping of RHS in += etc  | John Abbott        | 16 Feb 2024 17:35 | Tidying         | 100    |
| 1655 | CoCoALib |             | Normal    | Remove ability to compile CoCoALib against UNINSTALLED gmp?                               | John Abbott        | 14 Feb 2022 10:00 | Safety          | 100    |

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| 1653 | CoCoALib |             | Normal   | Discriminant: return value   | John Abbott | 04 Feb 2022 21:52 | Various         | 100    |
| 1627 | CoCoALib |             | Normal   | Use keyword "delete" for deleted functions                             | John Abbott | 04 Feb 2022 21:23 | Improving       | 100    |
| 1625 | CoCoALib |             | Normal   | Use new C++ keyword override   | John Abbott | 04 Feb 2022 21:48 | Safety          | 100    |
| 1617 | CoCoALib |             | Normal   | UnivariateIndetIndex: exact semantics                                  | John Abbott | 12 Nov 2021 11:44 | Tidying         | 100    |
| 1608 | CoCoALib |             | Normal   | Domain of definition of NextPrime (and PrevPrime)                      | John Abbott | 20 Oct 2021 22:09 | Tidying         | 100    |
| 1606 | CoCoALib |             | Normal   | Return type with const   | John Abbott | 21 Mar 2024 20:24 | Improving       | 100    |
| 1563 | CoCoALib |             | Normal   | BigRat: ctor from machine int  | John Abbott | 29 Jan 2021 11:26 | Safety          | 100    |
| 1558 | CoCoALib |             | Normal   | CpuTimeLimit: more frequent clock checks                               | John Abbott | 20 Sep 2021 15:41 | Improving       | 100    |
| 1547 | CoCoALib |             | Normal   | Require decimal mode for ostream?                                      | John Abbott | 04 Feb 2022 21:50 | Safety          | 100    |
| 1538 | CoCoALib |             | Normal   | RingElem from string (ReadExpr)  | John Abbott | 16 Sep 2021 12:54 | Various         | 100    |
| 1529 | CoCoALib |             | Normal   | INPUT questions  | John Abbott | 17 Feb 2021 11:02 | Safety          | 100    |
| 1528 | CoCoALib |             | Normal   | MacOS compilation with clang   | John Abbott | 23 Feb 2022 11:38 | Tidying         | 100    |
| 1523 | CoCoALib |             | Normal   | Input fns: action when when istream is in bad state?                   | John Abbott | 17 Feb 2021 11:01 | Safety          | 100    |
| 1515 | CoCoALib |             | Normal   | Indets in coeffring are ringelems in coeffring?                        | John Abbott | 27 Oct 2020 18:01 | Tidying         | 100    |
| 1511 | CoCoALib |             | Normal   | Use C++14 constexpr  | John Abbott | 16 Mar 2024 21:55 | Improving       | 100    |
| 1500 | CoCoALib |             | Normal   | IsDivisible in a field?  | John Abbott | 23 Oct 2020 10:57 | Safety          | 100    |
| 1467 | CoCoALib |             | Normal   | Change syntax apply(phi,M) into phi(M)?                                | John Abbott | 18 Feb 2022 15:24 | Improving       | 100    |
| 1463 | CoCoALib |             | Low      | SmoothFactor: use FactorMultiplicity                                   | John Abbott | 29 Oct 2020 21:44 | Tidying         | 100    |
| 1462 | CoCoALib |             | Normal   | Change CoCoA_ERROR into CoCoA_THROW_ERROR                              | John Abbott | 14 Oct 2020 14:06 | Improving       | 100    |
| 1460 | CoCoALib |             | Normal   | Name of TensorMat; change to KroneckerProd?                            | John Abbott | 29 Oct 2020 15:01 | Renaming        | 100    |
| 1413 | CoCoALib |             | Normal   | configure script: MODE option obsolete?                                | John Abbott | 11 Feb 2020 13:13 | Documentation   | 100    |
| 1389 | CoCoALib |             | Normal   | myZeroPtr and myOnePtr   | John Abbott | 13 Jan 2020 12:07 | Data Structures | 100    |
| 1377 | CoCoALib |             | Normal   | CpuTimeLimit: limit "intervals" between full checks                    | John Abbott | 11 Feb 2020 12:09 | Improving       | 100    |
| 1366 | CoCoALib |             | Normal   | Should configure remove the file ERR_MESSAGES if it's empty?           | John Abbott | 12 Feb 2020 15:57 | Tidying         | 100    |
| 1309 | CoCoALib |             | Normal   | SmoothFactor: allow limit = 1?   | John Abbott | 10 Oct 2019 18:45 | Improving       | 100    |
| 1295 | CoCoALib |             | Urgent   | Never use "using namespace .." in header files                         | John Abbott | 29 Oct 2019 12:00 | Portability     | 100    |
| 1279 | CoCoALib |             | Normal   | Tidy up code for matrix determinant                                    | John Abbott | 29 Oct 2020 21:48 | Tidying         | 100    |
| 1259 | CoCoALib |             | Normal   | ThreadsafeCounter is now obsolete?                                     | John Abbott | 14 Oct 2019 15:15 | Tidying         | 100    |
| 1257 | CoCoALib |             | Normal   | C++14: use nullptr   | John Abbott | 15 Oct 2019 14:09 | Improving       | 100    |
| 1232 | CoCoALib |             | Normal   | IsPrime(0)   | John Abbott | 29 Oct 2018 18:00 | Various         | 100    |
| 1223 | CoCoALib |             | Normal   | NewPolyRing default indet names  | John Abbott | 10 Oct 2019 19:13 | Safety          | 100    |
| 1221 | CoCoALib |             | Normal   | Reconsider design for accessing headers and libs of external libraries | John Abbott | 09 Oct 2020 13:54 | Portability     | 100    |

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| 1184 | CoCoALib |             | Normal   | should BeginIter(RingElem) be in SparsePolyIter or in SparsePolyOps-RingElem?                | John Abbott | 12 Feb 2020 18:17 | Tidying         | 100    |
| 1182 | CoCoALib |             | Normal   | "mod" for BigInt   | John Abbott | 03 Aug 2018 16:27 | Tidying         | 100    |
| 1180 | CoCoALib |             | Normal   | BigRat(0) unexpectedly compiles! (calls ctor with mpq_t arg)                                 | John Abbott | 15 Jan 2021 17:13 | Safety          | 100    |
| 1166 | CoCoALib |             | Normal   | C++11: allows large integer literals (in NumTheory-prime.C)                                  | John Abbott | 07 Mar 2024 20:49 | Portability     | 100    |
| 1162 | CoCoALib |             | Normal   | Check semantics of NoSmallFactorSeq  | John Abbott | 03 Aug 2018 16:01 | Improving       | 100    |
| 1159 | CoCoALib |             | Normal   | Add global enum "verify/DontVerify"  | John Abbott | 25 Jun 2018 15:06 | Data Structures | 100    |
| 1145 | CoCoALib |             | Normal   | File names, coding conventions: Fns, Ops, Operations? part 2                                 | John Abbott | 03 Aug 2018 16:17 | Renaming        | 100    |
| 1106 | CoCoALib |             | Normal   | Remove READLINE from CoCoALib  | John Abbott | 22 Apr 2024 20:24 | Tidying         | 100    |
| 1086 | CoCoALib |             | Normal   | New design for interrupt mechanism   | John Abbott | 08 Nov 2017 16:31 | Improving       | 100    |
| 1085 | CoCoALib |             | High     | Fns with "OUT" args: should they give ERR::MixedRings?                                       | John Abbott | 21 Mar 2024 20:29 | Safety          | 100    |
| 1065 | CoCoALib |             | Normal   | Design: should we allow an ideal to change ring?   | John Abbott | 07 Sep 2023 08:25 | Data Structures | 100    |
| 1019 | CoCoALib |             | Normal   | CPP flags in installed library   | John Abbott | 24 Apr 2017 17:55 | Portability     | 100    |
| 999  | CoCoALib |             | Normal   | configuration: include -std=c++03 by default?  | John Abbott | 08 Nov 2017 17:08 | Portability     | 100    |
| 983  | CoCoALib |             | Normal   | Which ostream for verbose/obsolescent log mesgs?   | John Abbott | 28 Apr 2017 09:35 | Tidying         | 100    |
| 982  | CoCoALib |             | Normal   | Catching interrupts in example progs?  | John Abbott | 09 Jan 2020 22:29 | Tidying         | 100    |
| 950  | CoCoALib |             | Normal   | factor and SmoothFactor for integers --> FactorINT, FactorINT_TrialDiv, FactorINT_PollardRho | John Abbott | 13 Mar 2023 22:02 | Safety          | 100    |
| 932  | CoCoALib |             | Normal   | CoCoALib configuration: BOOST dependency   | John Abbott | 27 Jan 2020 15:25 | Portability     | 100    |
| 891  | CoCoALib |             | High     | Replace auto_ptr in preparation for C++11?   | John Abbott | 25 Mar 2019 15:45 | Portability     | 100    |
| 859  | CoCoALib |             | Normal   | Twin-float: comparisons and equality test  | John Abbott | 25 Jun 2016 14:11 | Tidying         | 100    |
| 855  | CoCoALib |             | High     | Copyright and authorship?  | John Abbott | 15 Mar 2023 08:06 | Portability     | 100    |
| 829  | CoCoALib |             | High     | PPOrderingCtor: name of mem fn which actually constructs?                                    | John Abbott | 10 Nov 2017 15:09 | Tidying         | 100    |
| 825  | CoCoALib |             | Normal   | IsPositiveGrading -- really need 2 signatures?   | John Abbott | 03 Aug 2018 17:01 | Tidying         | 100    |
| 824  | CoCoALib |             | Normal   | Fn names: LexMat or MatLex; StdDegRevLexMat or MatStdDegRevLex etc                           | John Abbott | 24 Mar 2016 18:01 | Renaming        | 100    |
| 816  | CoCoALib |             | Normal   | Rename isqrt to FloorSqrt (following ilog renaming to FloorLog)                              | John Abbott | 02 Feb 2016 14:13 | Renaming        | 100    |
| 815  | CoCoALib |             | Normal   | GlobalManager: Imminent disaster should be a proper error                                    | John Abbott | 28 Apr 2017 09:32 | Tidying         | 100    |
| 806  | CoCoALib |             | Low      | AssignZero for matrix  | John Abbott | 23 Mar 2016 15:31 | Safety          | 100    |
| 805  | CoCoALib |             | Urgent   | New type for "constant" matrices?  | John Abbott | 28 Apr 2017 09:30 | Data Structures | 100    |
| 794  | CoCoALib |             | Normal   | ar gives warnings on fedora 23   | John Abbott | 17 Feb 2021 09:59 | Portability     | 100    |
| 789  | CoCoALib |             | Normal   | NumTheory: behaviour of InvMod when inverse does not exist                                   | John Abbott | 08 Nov 2017 17:44 | Safety          | 100    |
| 649  | CoCoALib |             | Normal   | Make SmallFpImpl safer to use  | John Abbott | 02 Feb 2016 12:36 | Safety          | 100    |

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| 642 | CoCoALib |             | Normal    | Move code in test file into namespace CoCoA                                      | John Abbott | 25 Jun 2015 17:15 | Portability  | 100    |
| 619 | CoCoALib |             | Normal    | Modulus (for CRTMill) ambiguous  | John Abbott | 25 Jun 2015 18:12 | Renaming     | 100    |
| 602 | CoCoALib |             | Normal    | OrdMat: should it be a reference to a MatrixView in all PPOOrderings?            | John Abbott | 23 Mar 2016 15:24 | New Function | 100    |
| 592 | CoCoALib |             | Urgent    | Review design of ConstMatrixView   | John Abbott | 29 Sep 2016 16:03 | Tidying      | 100    |
| 584 | CoCoALib |             | Normal    | BaseRing for all rings   | John Abbott | 31 Jul 2014 16:55 | New Function | 100    |
| 581 | CoCoALib |             | Normal    | C++14: MachineInt  | John Abbott | 18 Feb 2022 15:26 | Portability  | 100    |
| 560 | CoCoALib |             | Normal    | CoCoALib/io.H  | John Abbott | 15 May 2014 14:26 | Tidying      | 100    |
| 535 | CoCoALib |             | Normal    | IO: move GlobalInput etc to CoCoA server!  | John Abbott | 15 May 2014 14:58 | Tidying      | 100    |
| 511 | CoCoALib |             | Normal    | Rename file TmpFactor to factor  | John Abbott | 17 Apr 2014 09:49 | Renaming     | 100    |
| 498 | CoCoALib |             | Normal    | IsIntegralDomain, lamIntegralDomain3   | John Abbott | 17 Apr 2014 09:50 | Tidying      | 100    |
| 429 | CoCoALib |             | Normal    | factorization: public data fields, or mem fns allowing the fields to be updated. | John Abbott | 17 Apr 2014 09:50 | Safety       | 100    |
| 415 | CoCoALib |             | High      | Remove AsPolyRing etc?   | John Abbott | 17 Jul 2014 14:29 | Tidying      | 100    |
| 411 | CoCoALib |             | Normal    | design of factorization template class   | John Abbott | 03 Apr 2014 11:54 | Tidying      | 100    |
| 410 | CoCoALib |             | Normal    | New file: BigRatOps  | John Abbott | 03 Aug 2018 16:15 | Renaming     | 100    |
| 408 | CoCoALib |             | Normal    | Rename MatrixArith to MatrixOperations   | John Abbott | 17 Apr 2014 09:48 | Renaming     | 100    |
| 404 | CoCoALib |             | Normal    | deg(F,X) instead of MaxExponent(F,X) ?   | John Abbott | 20 May 2014 09:47 | Renaming     | 100    |
| 377 | CoCoALib |             | Normal    | IsDivisible -- exact semantics?  | John Abbott | 17 Apr 2014 09:21 | Maths Bugs   | 100    |
| 339 | CoCoALib |             | Normal    | DenseUPolyClean uses size_t  | John Abbott | 28 May 2013 18:57 | Portability  | 100    |
| 311 | CoCoALib |             | Immediate | XelMat, StdDegRevLexMat, ... should be MatrixView                                | John Abbott | 20 Jan 2017 15:16 | New Function | 100    |
| 291 | CoCoALib |             | Normal    | NewZZmod and NewRingFp: improve manual, clarify implementation                   | John Abbott | 03 Apr 2014 11:54 | Tidying      | 100    |
| 268 | CoCoALib |             | Normal    | Exponent range (in power products)   | John Abbott | 08 Oct 2015 12:10 | Safety       | 100    |
| 254 | CoCoALib |             | Normal    | How to return a Hilbert Series in CoCoALib                                       | John Abbott | 17 Apr 2014 15:19 | New Function | 100    |
| 64  | CoCoALib |             | Normal    | submat takes only vector<long>   | John Abbott | 08 Mar 2024 17:17 | Improving    | 100    |