

## CoCoALib - Issues

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
125	CoCoALib		Normal	Matrix equation solving; linear system solving	John Abbott	18 Mar 2024 10:00	New Function	50
142	CoCoALib		Normal	Improve threadsafety		21 Mar 2024 20:29	Safety	50
206	CoCoALib		Urgent	Matrix equation solving: LinKer		22 Mar 2024 09:42	New Function	30
222	CoCoALib		Normal	Printing polynomials - spaces between terms		14 Mar 2023 21:27	Various	30
262	CoCoALib		Normal	Play with GIT		08 Mar 2023 19:54	Various	0
308	CoCoALib		High	Error: ERR::NotNonZero instead of ERR::ZeroRingElem?		27 Mar 2024 17:37	Renaming	40
313	CoCoALib		High	Elim(vector<long>) as PPOrderingCtor	Anna Maria Bigatti	22 Mar 2024 18:17	New Function	30
582	CoCoALib		Normal	Error codes: use same code for "not poly ring" and "not elem poly ring"		26 Mar 2024 14:36	Tidying	30
598	CoCoALib		Normal	Syzygy for modules: non-homogeneous module	Anna Maria Bigatti	27 Mar 2024 17:31	Improving	40
601	CoCoALib		Normal	LongRange: in which file should it be declared/defined?		08 Mar 2023 20:45	Tidying	10
664	CoCoALib		Urgent	Impl small non-prime finite fields (using logs)	John Abbott	14 Mar 2023 19:49	New Function	80
680	CoCoALib		Normal	DistrMPolyClean does not use MemPool for summands?	John Abbott	07 Mar 2023 20:49	Tidying	70
707	CoCoALib		Normal	MatrixOrderingMod32749Impl: test and write documentation!	Anna Maria Bigatti	25 Apr 2024 21:46	Safety	50
710	CoCoALib		Normal	Update normaliz interface?		16 Feb 2024 18:25	Improving	10
743	CoCoALib		Urgent	Better errors: give supplementary info about the error		15 Mar 2024 18:33	Improving	10
777	CoCoALib		Normal	SLUG: elimination	Anna Maria Bigatti	22 Mar 2024 18:12	Improving	10
801	CoCoALib		Normal	Test whether a symbol is in a ring		07 Mar 2024 21:36	New Function	0
802	CoCoALib		Urgent	DivMask: extend interface?	John Abbott	08 Mar 2024 17:36	New Function	50
813	CoCoALib		Immediate	Implement "elim" in CoCoALib	Anna Maria Bigatti	18 Mar 2024 15:58	New Function	90
849	CoCoALib		Normal	Cleanup MinPoly code	Anna Maria Bigatti	08 Mar 2024 18:15	Tidying	10
866	CoCoALib		Normal	implicit, ImplicitHypersurface: improve output verification		22 Mar 2024 09:43	Tidying	20
871	CoCoALib		Normal	Redesign ideals		31 Oct 2023 11:24	Data Structures	0
872	CoCoALib		Urgent	LinSolve for matrices over FFp	John Abbott	08 Mar 2024 17:36	Improving	30
894	CoCoALib		Normal	strict enum types: C++11 extension	John Abbott	25 Apr 2024 21:49	Safety	30
898	CoCoALib		High	New function: cardinality of finite field?	Anna Maria Bigatti	08 Mar 2024 17:45	New Function	20
924	CoCoALib		Normal	FlagManager for bool/bool3 flags	Anna Maria Bigatti	16 Feb 2024 17:57	Data Structures	50
925	CoCoALib		Normal	MachineInt or long for args which are indices (yet again)		16 Apr 2024 22:29	Safety	50
933	CoCoALib		Normal	Separate configure scripts for CoCoALib and CoCoA-5	John Abbott	23 Jan 2024 21:52	Portability	10
934	CoCoALib		Normal	MachineInt: change semantics?		22 Apr 2024 21:32	Safety	30
947	CoCoALib		Normal	IsRadical for ideal?		23 Jan 2024 22:13	New Function	10
958	CoCoALib		Normal	New function: multiplicity and dim	Anna Maria Bigatti	08 Mar 2024 18:15	New Function	80

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967	CoCoALib		Normal	Improve saturate	Anna Maria Bigatti	22 Mar 2024 10:18	Improving	70
1057	CoCoALib		High	Slug: Polynomial ring constructor slow with (big) matrix ordering	Anna Maria Bigatti	22 Mar 2024 09:31	Improving	50
1094	CoCoALib		Normal	Revive code for SelfSaturating GBasis	Anna Maria Bigatti	22 Mar 2024 14:38	New Function	50
1118	CoCoALib		Low	SLUG: factorization of $x^{9999}$		31 Jan 2024 22:20	Improving	10
1125	CoCoALib		Normal	Separate install script for CoCoALib?	John Abbott	23 Jan 2024 21:54	Tidying	0
1132	CoCoALib		Normal	Canonical homomorphism for (some) polynomial rings?	Anna Maria Bigatti	08 Mar 2024 18:01	New Function	0
1176	CoCoALib		Normal	interval arithmetic	John Abbott	10 Mar 2023 17:46	New Function	50
1179	CoCoALib		Normal	Clean up SparsePolyOps-MonomialIdeals	Anna Maria Bigatti	22 Mar 2024 09:33	Tidying	20
1193	CoCoALib		Low	Naming convention mistakes		08 Mar 2023 20:52	Renaming	0
1197	CoCoALib		Normal	IsZeroDet: new fn	John Abbott	08 Mar 2024 17:58	New Function	40
1207	CoCoALib		Normal	New function: SubmoduleOfGBasis		18 Mar 2024 09:33	New Function	0
1219	CoCoALib		Normal	Frobby version number		08 Mar 2023 19:40	Documentation	10
1233	CoCoALib		High	factor SEGV -- too large characteristic	John Abbott	14 Mar 2023 19:45	Maths Bugs	60
1242	CoCoALib		Normal	C++14: Use type auto where appropriate		22 Apr 2024 21:08	Tidying	40
1254	CoCoALib		Normal	New function: MinPoly for pseudo-zero-dimensional ideals	Anna Maria Bigatti	07 Mar 2024 20:25	New Function	0
1255	CoCoALib		Normal	Ideals with trivial GBasis		08 Mar 2023 19:49	Improving	0
1263	CoCoALib		Normal	Tidy CoCoALib test directory	John Abbott	07 Mar 2023 20:49	Tidying	80
1280	CoCoALib		High	Determinant & Inverse of matrix over non integral domain	John Abbott	21 Jan 2024 19:43	Improving	40
1281	CoCoALib		High	Factor of multivariate sometimes prints ERROR		21 Jan 2024 20:03	Maths Bugs	10
1306	CoCoALib		Normal	exgcd over integers (ZZ)		08 Mar 2024 17:57	New Function	20
1337	CoCoALib		Normal	PrimaryDecomposition: a interesting/pathological example	Anna Maria Bigatti	08 Mar 2023 21:13	Improving	10
1346	CoCoALib		Normal	C++14: use the new for loop syntax where appropriate (like cocoa's foreach)		22 Apr 2024 21:08	Improving	80
1349	CoCoALib		Normal	ideal ctor where given gens are a gbasis		16 Feb 2024 09:52	Improving	10
1355	CoCoALib		Normal	TmpLDP uses srand and time		01 Mar 2024 09:50	Tidying	0
1370	CoCoALib		Low	RingID counter increased inside some functions		31 Jan 2024 22:19	Improving	0
1381	CoCoALib		Normal	Type ideal for $\mathbb{Z}[x[1..n]]$		16 Feb 2024 09:47	Data Structures	10
1388	CoCoALib		Normal	GlobalManager: create SignalWatcher internally?		01 Mar 2024 09:49	Safety	0
1394	CoCoALib		Low	Oddly slow GBasis computation (slow final cleanup)	Anna Maria Bigatti	16 Apr 2024 22:46	Improving	70
1414	CoCoALib		High	Make class RingElemVector?		25 Apr 2024 21:53	Data Structures	20
1417	CoCoALib		Normal	RadicalZeroDim with extra parameter for GBasis timeout	Anna Maria Bigatti	16 Mar 2024 21:42	Improving	20
1422	CoCoALib		Normal	Remove flag IhaveGBasisValue?	Anna Maria Bigatti	16 Feb 2024 17:56	Data Structures	10
1428	CoCoALib		Normal	DenseMatrix: use template impl for ctors from vec-vec?		07 Mar 2024 20:49	Tidying	0

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1444	CoCoALib		Normal	HNF: Hermite Normal Form		16 Feb 2024 09:53	New Function	0
1446	CoCoALib		Normal	Start using C++14 "move" capability		08 Mar 2024 18:00	Improving	10
1464	CoCoALib		Normal	What is the difference between InterruptReceived and InterruptedBySignal		01 Mar 2024 09:54	Tidying	0
1465	CoCoALib		Normal	mul(MAT,MAT,MAT)		16 Feb 2024 10:04	Tidying	10
1485	CoCoALib		Normal	Simple syntax for making a quotient ring?		08 Mar 2023 19:51	Improving	0
1497	CoCoALib		Normal	Doc for normaliz fns		08 Mar 2023 19:40	Documentation	0
1510	CoCoALib		Normal	Documentation for SparsePolyOps?		18 Mar 2024 09:45	Documentation	30
1513	CoCoALib		Normal	Better test for univariate-ness (and better conversion)		16 Mar 2024 21:38	Improving	0
1521	CoCoALib		Normal	Unexpectedly slow example with larger types for SmallExponent_t		08 Mar 2023 19:54	Various	0
1542	CoCoALib		Normal	gfan does not "deinitialize"		08 Mar 2023 19:53	Various	30
1559	CoCoALib		Normal	Default ctor for rings		13 Mar 2024 20:42	Improving	10
1561	CoCoALib		High	Doc for module term orderings		08 Mar 2024 17:38	Documentation	0
1562	CoCoALib		Normal	matrix.H and MatrixView.H		08 Mar 2023 19:56	Tidying	0
1571	CoCoALib		Normal	ker_H needs care	Anna Maria Bigatti	16 Feb 2024 17:49	Maths Bugs	10
1572	CoCoALib		Normal	Use noexcept	John Abbott	23 Apr 2024 21:57	Improving	70
1575	CoCoALib		Normal	DynamicBitset missing arg checks	Anna Maria Bigatti	16 Feb 2024 09:46	Safety	0
1576	CoCoALib		Normal	cmp for machine integers	John Abbott	21 Jan 2024 20:23	Improving	20
1600	CoCoALib		Normal	Detect updated versions of external libs		16 Feb 2024 10:02	Safety	10
1609	CoCoALib		Low	Clean time.C		08 Mar 2023 19:54	Tidying	0
1611	CoCoALib		Normal	Documentation for PrimaryDecomposition		16 Feb 2024 09:42	Documentation	0
1628	CoCoALib		Normal	Unused variables, params, data members		11 Mar 2023 12:29	Tidying	10
1635	CoCoALib		Normal	NR for polys with coeffs in PID		16 Feb 2024 09:39	New Function	10
1642	CoCoALib		Normal	interreduce: make monic if over finite field?	John Abbott	16 Feb 2024 20:44	Improving	20
1643	CoCoALib		Normal	rref slower than expected (maybe) [[reduced row echelon form]]		01 Mar 2024 09:54	Improving	0
1657	CoCoALib		Normal	Improve CertifyNotPower		31 Jan 2024 22:03	Improving	0
1662	CoCoALib		Normal	txt2tags: problem with filenames containing "_" or "-"	Anna Maria Bigatti	09 Apr 2024 14:21	Documentation	80
1664	CoCoALib		Normal	geobucket: documentation		08 Mar 2023 19:44	Documentation	0
1665	CoCoALib		Normal	Compilation on Windows: problems for normaliz	Anna Maria Bigatti	18 Mar 2024 09:27	Documentation	0
1667	CoCoALib		Urgent	GBasis over ZZ: port to CoCoALib		09 May 2024 20:46	Improving	10
1668	CoCoALib		Normal	Generalize prim		31 Jan 2024 22:03	Improving	0
1669	CoCoALib		Normal	Review File subtree hierarchy		08 Mar 2023 19:56	Tidying	0
1670	CoCoALib		Normal	Build also dynamic/shared library for CoCoALib?		07 Mar 2024 21:33	Portability	0

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1673	CoCoALib		Normal	Review examples		08 Mar 2023 19:45	Documentation	0
1677	CoCoALib		Normal	release-source script: use shell globbing?		16 Feb 2024 10:01	Tidying	10
1678	CoCoALib		Normal	Unsigned long for indexes (& sizes?)		07 Mar 2024 20:25	Safety	10
1683	CoCoALib		Immediate	Islrred in ZZ[x,y]	John Abbott	16 Feb 2024 09:39	Improving	0
1685	CoCoALib		Normal	RingBase::mySwap needed?		07 Mar 2024 20:49	Improving	10
1699	CoCoALib		Normal	Shell scripts: Shebang line, etc		16 Feb 2024 10:01	Portability	10
1703	CoCoALib		Normal	Threadsafty, multithreading: optional fn arg (or separate fn)	John Abbott	07 Mar 2024 20:04	Safety	80
1704	CoCoALib		Normal	Symlink directory for external files needed by CoCoA-5	Anna Maria Bigatti	18 Mar 2024 09:29	Tidying	0
1705	CoCoALib		Normal	ProgressReporter: prepare for new loop?	John Abbott	25 Apr 2024 21:40	Improving	80
1711	CoCoALib		Normal	Development releases?	Anna Maria Bigatti	09 Mar 2023 20:56	Various	90
1715	CoCoALib		Low	ProductBigInt (also ProductBigRat???)		23 Jan 2024 22:14	New Function	0
1720	CoCoALib		Normal	DivAlg in CoCoALib	Anna Maria Bigatti	25 Mar 2024 17:55	Tidying	20
1727	CoCoALib		Normal	Cruft in ExtLibs-Normaliz.C		13 Mar 2023 19:01	Tidying	0
1730	CoCoALib		Normal	ApplySPRCodomain: relax power/exponent check		27 Nov 2023 20:30	Improving	0
1733	CoCoALib		Low	FactorINT: funny order	John Abbott	22 Apr 2024 19:51	Improving	60
1736	CoCoALib		Normal	Clean TmpGOperations, and remove Tmp prefix		28 Apr 2023 16:01	Tidying	0
1737	CoCoALib		Normal	Homogenization of an ideal with ZZ^1-grading	Anna Maria Bigatti	01 Feb 2024 19:59	Improving	20
1738	CoCoALib		Normal	Suggestion about Graded polynomial rings		05 May 2023 08:47	Data Structures	10
1740	CoCoALib		High	MinGens gives non minimal gens *if some deg=0*	Anna Maria Bigatti	22 Mar 2024 18:04	Maths Bugs	30
1742	CoCoALib		Normal	MinGens could be faster	Anna Maria Bigatti	18 May 2023 13:44	Improving	10
1743	CoCoALib		Normal	Implement Truncated GBases for homogeneous input	Anna Maria Bigatti	19 May 2023 15:42	New Function	0
1744	CoCoALib		Normal	Implement GBMill (aka Groebner Framework)	Anna Maria Bigatti	25 May 2023 14:30	Data Structures	10
1748	CoCoALib		Normal	July 2023	John Abbott	08 Mar 2024 08:29	Various	0
1750	CoCoALib		Normal	IdealOfPoints: allow duplicate points?	John Abbott	08 Mar 2024 18:23	Improving	20
1756	CoCoALib		Normal	deg(f) is slow if f is long	John Abbott	21 Mar 2024 20:40	Improving	50
1757	CoCoALib		Normal	gcd(f,f) is slow		16 Feb 2024 09:57	Improving	0
1764	CoCoALib		Low	Verbosity messages: avoid printing BIG values		25 Apr 2024 21:44	Improving	10
1777	CoCoALib		Normal	VerificationLevel: just 3? Low, high, guaranteed?		16 Feb 2024 10:00	Various	0
1778	CoCoALib		Normal	Homogenizer		09 May 2024 20:58	New Function	10
1782	CoCoALib		Normal	Make CoCoALib test file for radical	Anna Maria Bigatti	01 Mar 2024 09:44	Tidying	0
1787	CoCoALib		Normal	Iterator design: compatible with C++STL? Advancing beyond end?	John Abbott	23 Apr 2024 22:26	Tidying	30
1792	CoCoALib		Normal	CpuTimeOut: arg of type ErrorContext?		18 Mar 2024 20:50	Tidying	0

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1793	CoCoALib		Normal	Use ErrorContext instead of string FnName		26 Mar 2024 11:50	Improving	60
1796	CoCoALib		Normal	myFinalizeGBasis ("Final clean up") should be more flexible	Anna Maria Bigatti	22 Mar 2024 16:19	Improving	30
1798	CoCoALib		Normal	Computing in sub polyring		22 Mar 2024 09:30	Improving	0
1800	CoCoALib		Normal	Conversion from SmallPrime to UNSIGNED long?		15 Apr 2024 10:09	Tidying	10
1801	CoCoALib		Normal	BuildInfo		13 Apr 2024 22:18	Tidying	10
1807	CoCoALib		Normal	Error codes: "Not..." for "blah must be ..." -- change prefix		26 Mar 2024 14:22	Renaming	0
1808	CoCoALib		Normal	New constructor for PolyRing with elimination ordering	Anna Maria Bigatti	28 Mar 2024 07:35	New Function	10
1809	CoCoALib		Normal	Make ex-syz.C	Anna Maria Bigatti	28 Mar 2024 08:45	Documentation	10
1811	CoCoALib		Normal	Check include guards	John Abbott	22 Apr 2024 20:15	Tidying	90
1812	CoCoALib		Normal	Documentation: indexXX.html should be recompiled if version has changed		29 Mar 2024 10:37	Documentation	0