

## CoCoALib - Issues

Estimated time: 189.02

#	Tracker	Status	Subject	Estimated time
1812	Bug	New	Documentation: indexXX.html should be recompiled if version has changed	
1811	Bug	Feedback	Check include guards	
1809	Feature	New	Make ex-syz.C	2.0
1808	Feature	In Progress	New constructor for PolyRing with elimination ordering	
1807	Design	New	Error codes: "Not..." for "blah must be ..." -- change prefix	
1801	Design	In Progress	BuildInfo	
1800	Design	In Progress	Conversion from SmallPrime to UNSIGNED long?	
1798	Design	New	Computing in sub polyring	
1796	Slug	New	myFinalizeGBasis ("Final clean up") should be more flexible	
1793	Feature	In Progress	Use ErrorContext instead of string FnName	
1792	Design	New	CpuTimeOut: arg of type ErrorContext?	
1787	Design	In Progress	Iterator design: compatible with C++STL? Advancing beyond end?	
1782	Support	New	Make CoCoALib test file for radical	4.0
1778	Feature	In Progress	Homogenizer	
1777	Design	New	VerificationLevel: just 3? Low, high, guaranteed?	
1764	Bug	In Progress	Verbosity messages: avoid printing BIG values	
1757	Slug	New	gcd(f,f) is slow	
1756	Slug	In Progress	deg(f) is slow if f is long	
1750	Design	In Progress	IdealOfPoints: allow duplicate points?	
1748	Feature	New	July 2023	
1744	Design	In Progress	Implement GBMill (aka Groebner Framework)	40.0
1743	Feature	New	Implement Truncated GBases for homogeneous input	4.0
1742	Feature	New	MinGens could be faster	10.0
1740	Bug	In Progress	MinGens gives non minimal gens *if some deg=0*	8.0
1738	Design	New	Suggestion about Graded polynomial rings	
1737	Slug	In Progress	Homogenization of an ideal with ZZ^1-grading	
1736	Design	New	Clean TmpGOperations, and remove Tmp prefix	
1733	Bug	Resolved	FactorINT: funny order	
1730	Bug	New	ApplySPRCodomain: relax power/exponent check	
1727	Design	New	Cruft in ExtLibs-Normaliz.C	

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1720	Design	New	DivAlg in CoCoALib	
1719	Bug	Closed	FactorINT has got worse	4.25
1715	Feature	New	ProductBigInt (also ProductBigRat???)	
1711	Support	Feedback	Development releases?	6.0
1705	Bug	In Progress	ProgressReporter: prepare for new loop?	
1704	Design	New	Symlink directory for external files needed by CoCoA-5	
1703	Design	Resolved	Threaddafety, multithreading: optional fn arg (or separate fn)	
1699	Design	In Progress	Shell scripts: Shebang line, etc	
1685	Design	In Progress	RingBase::mySwap needed?	
1683	Bug	New	Islrred in ZZ[x,y]	
1678	Design	In Progress	Unsigned long for indexes (& sizes?)	
1677	Design	In Progress	release-source script: use shell globbing?	
1673	Support	New	Review examples	
1670	Feature	New	Build also dynamic/shared library for CoCoALib?	
1669	Design	New	Review File subtree hierarchy	
1668	Feature	New	Generalize prim	
1667	Feature	In Progress	GBasis over ZZ: port to CoCoALib	
1665	Support	New	Compilation on Windows: problems for normaliz	
1664	Support	New	geobucket: documentation	
1662	Bug	Resolved	txt2tags: problem with filenames containing "_" or "-"	
1657	Feature	New	Improve CertifyNotPower	
1643	Slug	New	rref slower than expected (maybe) [[reduced row echelon form]]	
1642	Design	In Progress	interreduce: make monic if over finite field?	
1635	Feature	In Progress	NR for polys with coeffs in PID	
1628	Design	In Progress	Unused variables, params, data members	
1611	Support	New	Documentation for PrimaryDecomposition	
1609	Support	New	Clean time.C	
1600	Bug	In Progress	Detect updated versions of external libs	
1576	Design	In Progress	cmp for machine integers	
1575	Bug	New	DynamicBitset missing arg checks	
1572	Design	Resolved	Use noexcept	
1571	Bug	New	ker_H needs care	
1562	Design	New	matrix.H and MatrixView.H	

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1561	Support	New	Doc for module term orderings	
1559	Feature	In Progress	Default ctor for rings	
1542	Bug	In Progress	gfan does not "deinitialize"	
1521	Slug	New	Unexpectedly slow example with larger types for SmallExponent_t	
1513	Feature	New	Better test for univariate-ness (and better conversion)	
1510	Support	New	Documentation for SparsePolyOps?	
1497	Support	New	Doc for normaliz fns	
1485	Feature	New	Simple syntax for making a quotient ring?	
1465	Design	In Progress	mul(MAT,MAT,MAT)	
1464	Design	New	What is the difference between InterruptReceived and InterruptedBySignal	
1446	Design	In Progress	Start using C++14 "move" capability	
1444	Feature	New	HNF: Hermite Normal Form	
1428	Design	New	DenseMatrix: use template impl for ctors from vec-vec?	
1422	Design	In Progress	Remove flag lhaveGBasisValue?	
1417	Feature	In Progress	RadicalZeroDim with extra parameter for GBasis timeout	6.0
1414	Design	In Progress	Make class RingElemVector?	
1394	Slug	Resolved	Oddly slow GBasis computation (slow final cleanup)	
1388	Feature	New	GlobalManager: create SignalWatcher internally?	
1381	Feature	In Progress	Type ideal for ZZ[x[1..n]]	
1370	Design	New	RingID counter increased inside some functions	
1355	Design	New	TmpLDP uses srand and time	
1349	Feature	In Progress	ideal ctor where given gens are a gbasis	
1346	Design	In Progress	C++14: use the new for loop syntax where appropriate (like cocoa's foreach)	
1337	Slug	In Progress	PrimaryDecomposition: a interesting/pathological example	
1306	Feature	In Progress	exgcd over integers (ZZ)	
1281	Bug	New	Factor of multivariate sometimes prints ERROR	
1280	Bug	In Progress	Determinant & Inverse of matrix over non integral domain	
1263	Support	Resolved	Tidy CoCoALib test directory	
1255	Design	New	Ideals with trivial GBasis	
1254	Feature	New	New function: MinPoly for pseudo-zero-dimensional ideals	
1242	Design	In Progress	C++14: Use type auto where appropriate	
1233	Bug	Resolved	factor SEGV -- too large characteristic	
1219	Feature	In Progress	Frobby version number	

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1218	Feature	Closed	32-bit or 64-bit preprocessor macro?	1.95
1207	Feature	New	New function: SubmoduleOfGBasis	5.0
1197	Feature	In Progress	IsZeroDet: new fn	
1193	Support	New	Naming convention mistakes	
1179	Design	In Progress	Clean up SparsePolyOps-MonomialIdeals	
1176	Feature	In Progress	interval arithmetic	
1132	Feature	New	Canonical homomorphism for (some) polynomial rings?	
1125	Design	New	Separate install script for CoCoALib?	
1118	Slug	In Progress	SLUG: factorization of $x^{9999}$	
1106	Design	Closed	Remove READLINE from CoCoALib	0.1
1094	Feature	In Progress	Revive code for SelfSaturating GBasis	30.0
1057	Slug	In Progress	Slug: Polynomial ring constructor slow with (big) matrix ordering	8.0
967	Slug	Resolved	Improve saturate	5.0
958	Feature	Resolved	New function: multiplicity and dim	3.0
947	Feature	In Progress	IsRadical for ideal?	
934	Design	In Progress	MachineInt: change semantics?	3.0
933	Design	In Progress	Separate configure scripts for CoCoALib and CoCoA-5	
925	Design	In Progress	MachineInt or long for args which are indices (yet again)	
924	Design	New	FlagManager for bool/bool3 flags	
898	Feature	In Progress	New function: cardinality of finite field?	
894	Design	In Progress	strict enum types: C++11 extension	
872	Feature	In Progress	LinSolve for matrices over FFp	
871	Design	New	Redesign ideals	
866	Slug	In Progress	implicit, ImplicitHypersurface: improve output verification	20.0
849	Design	In Progress	Cleanup MinPoly code	
813	Feature	Feedback	Implement "elim" in CoCoALib	3.0
802	Feature	In Progress	DivMask: extend interface?	
801	Feature	New	Test whether a symbol is in a ring	
777	Slug	In Progress	SLUG: elimination	
743	Feature	In Progress	Better errors: give supplementary info about the error	
718	Feature	Closed	Insert calls to CheckForInterrupt	2.22
710	Design	In Progress	Update normaliz interface?	
707	Design	In Progress	MatrixOrderingMod32749Impl: test and write documentation!	8.0

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680	Bug	Resolved	DistrMPolyClean does not use MemPool for summands?	
664	Feature	Resolved	Impl small non-prime finite fields (using logs)	
601	Design	In Progress	LongRange: in which file should it be declared/defined?	
598	Feature	In Progress	Syzygy for modules: non-homogeneous module	
582	Design	New	Error codes: use same code for "not poly ring" and "not elem poly ring"	3.0
313	Feature	In Progress	Elim(vector<long>) as PPOrderingCtor	
308	Design	In Progress	Error: ERR::NotNonZero instead of ERR::ZeroRingElem?	2.0
262	Support	New	Play with GIT	
222	Feature	In Progress	Printing polynomials - spaces between terms	10.5
206	Feature	In Progress	Matrix equation solving: LinKer	
142	Feature	In Progress	Improve threadsafety	
125	Feature	In Progress	Matrix equation solving; linear system solving	