CoCoALib - Issues

#	Tracker	Status	Subject	Estimated time
1799	Design	New	Clean out OLD CODE?	
1706	Feature	New	slimgb: Brickenstein, singular	
1632	Design	New	C++17: notes about updating	
1584	Support	New	Benchmarks?	
1491	Design	New	Unified Gaussian reduction impl	
1419	Feature	New	DynamicBitset::IamAll1s	
1378	Design	New	Create two separate radical fns (for 0-dim ideals)	
1371	Bug	In Progress	French students' example with GFan	
1369	Slug	In Progress	RandomUnimodularMat is slow with many iters	
1359	Slug	New	gcd: low degree but big coeffs can be slow	
1339	Feature	New	All PPs of given wdeg	
1324	Slug	In Progress	Improve RootBound	
1323	Feature	New	Improve RealRoots: compute sqfr decomp	
1278	Feature	New	Port old "clever" code for matrix determinant over ZZ to CoCoALib	
1269	Feature	New	Ideal Ops: sort-cuts for trivial args?	
1267	Feature	In Progress	Ideal equality	10.0
1266	Design	New	Make a poly ring QQ[x,y,z] also contain a ZZ[x,y,z]	
1227	Feature	New	exgcd; solve Bezout equation	
1208	Bug	New	New function: Threadsafe RandomLinearForm (CoCoALib)	10.0
1198	Feature	New	Non-standard DegRevLex (NonStdDegRevLex, WDegRevLex)	
1187	Slug	New	Matrix rank is slow (over QQ)	
1173	Feature	New	Upper bound for value of poly in an interval	
1160	Support	New	Clean up revised RatReconstructByContFrac code	
1156	Design	New	Printing for RingElem	
1150	Feature	New	New fn: transform ideal with ring hom	
1147	Design	New	mySquare and myPowerSmallExp	
1134	Support	New	Organize better the documentation for CoCoALib	
1130	Bug	In Progress	SqFreeFactor: should it work over ZZ?	
1117	Feature	In Progress	Better printing of negative coeffs	
1103	Feature	In Progress	Pseudo-zero-dim ideals	

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1098	Design	New	Ctors for exceptions/errors	
1096	Support	New	WEB SITE: HTML is not clean!	
1089	Bug	In Progress	invalid pointer in "free"	
1070	Slug	New	Slug: MakeTermOrd (rk calls in RemoveRedundantRows)	
1069	Bug	In Progress	GroebnerFan: ERROR: Matrix must be invertible	
1059	Design	New	Printing ring for ideals (or just for ideals 0 and 1)	3.0
1049	Slug	In Progress	GroebnerFan: slow examples	
1026	Bug	New	JanetBasis gives error indet index out of range	
1022	Feature	New	New "LF" function which is based on StdDeg	3.0
1014	Bug	In Progress	RowMat, ColMat with arg an empty list/vector	
1013	Support	New	GlobalManager: name of object in examples (and tests)	
1010	Feature	New	C++11: Mario's Hilbert scheme code	
992	Feature	New	Poly ring homomorphism to change ordering	
987	Feature	New	GCD: add special case if args are monomials	
986	Bug	In Progress	GFan: require version newer than 0.6	
974	Feature	In Progress	QIR/RealRootRefine: improve behaviour if input interval has "nasty" endpoints	
972	Support	New	ex-PolyIterator	
970	Design	In Progress	Weights in ElimMat?	
968	Slug	In Progress	Slow NF example	16.0
937	Feature	In Progress	LinDepMill: Mill for linear dependencies	
930	Bug	New	Printing TwinFloat as (rational) coeff without brackets	
926	Support	New	Documentation: check layout of history at end of generated HTML files (from the txt files)	
923	Feature	New	Fn to read symbol range (SymbolRange)	
921	Design	New	Design GBMill	
919	Feature	New	Hilbert Driven GBasis	
914	Feature	New	New function: quorem for univariate polynomials?	
913	Feature	New	Read input from SymbolicData database	
906	Design	New	External libraries: keep copy of compatible versions?	
904	Feature	New	SmallFpDouble: which impl of InvMod to use?	
896	Feature	In Progress	myIsEqual, myCmp: direct comparisons between RingElem and MachineInt, BigInt and BigRat?	
885	Feature	In Progress	IsIrred3: fast 3-way irred test (returning bool3)	
884	Slug	New	DistrMPolyInlPP::myPushFront and DistrMPolyInlPP::myPushBack inefficient if arg is a PP	
882	Slug	New	Impl faster multiplication for DUP (dense univariate polys)	

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874	Slug	In Progress	factor: too slow on largish multivariate poly	
873	Feature	In Progress	bool3: add some logical operations?	
869	Feature	New	SmallFpImpl: different repr for computation and for storage?	
846	Design	In Progress	IsIrred: correct design?	
842	Slug	New	PPMonoidSparse: comparisons are VERY SLOW	
841	Design	In Progress	NewPolyRing: tidy up the many different versions	
840	Feature	In Progress	GINV: alex basis	
839	Feature	In Progress	SparsePolyIter: make more compatible with STL	
838	Feature	In Progress	Differential algebra	
837	Slug	New	factor is very slow on some simple input polynomials	
835	Feature	New	Make Mario's new code threadsafe	
833	Bug	New	UIBC: need include file in RingWeyl.C	
832	Design	New	Generalize grading matrix	6.0
828	Feature	In Progress	MachineInt: function for checking that value is greater than some lower limit (and below MAXLONG)	
826	Feature	New	Sparse matrices	
818	Bug	In Progress	F5 with 3 args?	
817	Feature	New	GenRepr in CoCoALib?	
812	Feature	New	PPMonoid pseudo-ctor without explicit ordering	
809	Design	New	FastCmp for degree -- useful?	
808	Bug	New	Alg Extn by non-zero dim ideal	
803	Feature	In Progress	PPOrdering: use it to compute WDeg?	
799	Slug	In Progress	vector of "indets" in each PPMonoid?	
797	Feature	In Progress	SmallFpImpl: make it faster	
791	Support	New	Clean code for DistrMPolyClean	
788	Support	New	No doc for DistrMPolyInlFpPP	
787	Design	New	Remove refcounts from RingElem?	
785	Design	New	finite fields: global register of fields already created?	
784	Bug	In Progress	threadsafety: Scott Meyers's advice about cached values	
780	Feature	In Progress	GroebnerFan/ExternalLib-GFan: improve package	20.0
779	Bug	New	Makefile: problem not seeing when files in TmpFactorDir need to be rebuilt	
778	Design	In Progress	CRTMill::myAddInfo accept modulus 1 or not?	
775	Feature	New	PPMonoid with 1 extra "exponent"?	
769	Design	In Progress	CoCoALib cone	

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765	Feature	In Progress	ExternalLib-CDD: (needed by GFan)	
763	Design	In Progress	GlobalManager: initialization compatible with initialization of external libs	
758	Feature	In Progress	configure: have option to say to look for external libs	
752	Design	New	Investigate using Boost.build instead of make	
746	Bug	New	Problem with GBasis in tower of alg extns	
742	Slug	In Progress	View PP exponent vector (and order vector?) as an array of long?	
740	Feature	New	Addition of sparse (multivariate) polynomials	
738	Feature	In Progress	Extend homomorphism to polynomial ring	3.0
729	Feature	In Progress	Betti numbers, betti diagram	
728	Feature	In Progress	Noncommutative algebra "of solvable type"	
725	Slug	New	Example database: Slow ideal equality test	
703	Design	New	Add more operations between modules (CoCoALib)	20.0
695	Support	New	Remove cruft from test files	
690	Feature	New	Fault tolerant rational reconstruction: implement simultaneous version	
688	Slug	New	PolyAlgebraHom (PolyRingHom) evaluate multivariate polynomials	
686	Design	New	myAddMul in poly rings	
685	Feature	New	Use DivMask inside QBGenerator	
682	Feature	New	PPMonoid: add fn to check for overflow in products	3.0
681	Feature	New	MemPool: make it easier to get just stats	
678	Feature	In Progress	Accumulator (like a geobucket)	
676	Support	In Progress	Credits to CoCoALib contributors	
675	Slug	In Progress	Matrix determinant over multivariate poly ring	
667	Feature	New	factor: multivariate + finite characteristic	
665	Feature	In Progress	Integrate Janet/Pommaret basis code	
661	Feature	New	Laurent polynomials	
651	Feature	In Progress	Optimized algorithms for implicitization (slicing algorithm, elim, subalgebra..)	100.0
647	Design	New	Unique copies of free modules?	
644	Feature	New	Buchberger-Moeller: add option to stop as soon as 1 poly has been found	
640	Bug	New	What is test-Dynamic1.C	
639	Feature	New	Shadow CoCoA namespace to help guarantee portability (without ambiguity)	
628	Feature	New	Complex twin-floats	
627	Feature	New	Gaussian integer and rationals ZZi, QQi	
624	Support	New	Wikipedia	

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620	Design	In Progress	Redesign CRTMill	40.0
617	Feature	New	configure: check all libraries for compatibility	
591	Bug	In Progress	Problem with template instantiation and order of include directives	5.0
589	Feature	New	Implement gin (generic initial ideal) in cocoalib	3.0
583	Feature	New	New function for printing with extra information	
575	Feature	In Progress	Investigate using cmake for configuration	
572	Design	New	Split SparsePolyRing.H into two files? Problem with circular includes.	
570	Feature	New	Allow use of RingElem instead of ring in some functions (e.g. PPM, CoeffRing)	
569	Support	New	Documentation for ReductionCog	
565	Feature	In Progress	FloatApprox for TwinFloat values?	20.0
564	Feature	New	Temporary file for experimentation	2.0
562	Feature	New	Subrings	40.0
551	Design	New	Reconsider overloaded virtual mem fns	15.0
550	Design	New	add myResolution member field to ideal and (sub)module	
547	Bug	New	elim using RingTwinFloat triggers error "SERIOUS"	20.0
539	Feature	New	Functions to clean up a factorization	7.0
537	Slug	New	FloatStr uses too much memory	
516	Feature	New	Make squarefreefactor work in multiple polynomial extns	
515	Feature	New	Fn to "flatten" muliple polynomial extns	
513	Design	In Progress	Quick/correct flag for bool3 fns	20.0
505	Support	New	Documentation: write doc for RingDenseUPolyClean	1.5
497	Support	New	Clang: automatic bug finding	
482	Feature	In Progress	Unique copies of rings -- smart ctor	
459	Feature	New	LinearSimplify: port to CoCoALib	
455	Design	New	Which sets of generators in an ideal?	16.0
442	Feature	New	Eigenvectors	
440	Feature	New	Port RealRoots to C++	
438	Support	In Progress	Polynomial multiplication (product of RingElem)	
437	Feature	In Progress	MemPool: order free blocks?	15.0
436	Feature	New	Improve UPoly eval at BigRat for binary rational	
432	Design	In Progress	Semantics of IsPrintedWithMinus	
427	Design	In Progress	Error names and error messages (current design)	20.0
420	Feature	New	Allow user to give a name to a ring	

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409	Feature	New	Minimal syzygies (optimized implementation)	10.0
401	Bug	New	NewFreeModule of dimension 0	
400	Feature	New	add myJBMill member field to ideal	
399	Feature	New	add myHilbertSeries member field to ideal and (sub)module	
396	Design	New	PPMonoidElemAlias: redesign PPMonoidElem the same way as RingElem?	
387	Feature	New	implement algorithm(s) for resolutions	
386	Feature	In Progress	add resolution data type	
383	Feature	In Progress	Resolution/morse: integrate Mario Albert's code into CoCoALib	
360	Design	New	CoCoAServer: what future, what issues?	
353	Support	In Progress	Missing documentation and tests for myRecvTwinFloat	
337	Feature	New	Module homs	
329	Slug	New	Why is DMPI slower than DMPClean?	
326	Bug	In Progress	C++ nasty surprises	
316	Design	In Progress	submodule constructor different from ideal	
315	Feature	New	Add doc for ApproxPts2	10.0
305	Design	In Progress	FreeModule: unique copy?	
302	Support	In Progress	Compilation on M$Windows: Visual Studio	
297	Design	In Progress	Modules design: brainstorming	
289	Feature	New	PrimeField -- new fn?	
282	Feature	New	Global setting: to use IsProbPrime in place of IsPrime	
281	Feature	New	Store unique copy of FF(p) in GlobalManager	
277	Bug	New	Eliminate class RefPPMonoidElem?	8.0
272	Design	New	Forward declarations	
263	Design	New	Move the various <matrix>::mySetEntry procedures into MatrixBase	
258	Feature	New	Multivariate lifting	
257	Feature	New	Transcribe C4 code for GCD in QQ[x]	
246	Feature	New	Approx QIR	
232	Bug	New	No test for QBGenerator	5.0
231	Support	New	Documentation for QBGenerator needs to be improved.	
229	Feature	New	Generator for random ring elements	
227	Feature	New	HilbertBasis from Normaliz: full-lattice or not?	
205	Support	New	Example for change of coordinates with coeffs in a matrix	1.0
196	Bug	New	PPWithMask needs checking	

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174	Feature	New	IsStdGraded: add for PPOrdering, PPMonoid, (Sparse)PolyRing..	
161	Support	New	Convert old "task table" into redmine	8.0
154	Bug	In Progress	GCD normalization (e.g. monic)	
151	Feature	New	Iterated CanonicalHom	20.0
150	Feature	In Progress	RingOf rather than owner? (and than AmbientRing, ...)	8.0
149	Bug	New	Makefile dependencies	
147	Feature	In Progress	Buchberger-Moeller: impl via modular reduction	25.0
146	Feature	New	Buchberger-Moeller: input conversions	7.5
145	Feature	New	Buchberger-Moeller: fast modular impl	20.0
143	Feature	In Progress	Buchberger-Moeller (parent task)	
134	Feature	New	Convenience ring ctors and homs	
130	Bug	New	Design problem in ideals	
129	Slug	New	Better GCD	15.0
127	Feature	In Progress	Convert DUPFF code to C++	25.0
126	Feature	New	New datastructures directory	
123	Feature	New	IdealOfPoints with generic coeffs	
120	Slug	New	LT over QQ: surprisingly slow	4.0
114	Bug	In Progress	Ideals of polynomials	4.0
113	Feature	In Progress	Introduce PartialHom	15.0
112	Support	New	automatic creation of all function signatures	
92	Feature	In Progress	Error Codes	40.0
87	Support	New	Cleanup header for ring classes (so that they are e-diff-able)	5.0
76	Support	New	keywords in documentation	10.0
74	Bug	New	printing polynomials	5.0
59	Support	New	List of all functions in CoCoALib	
6	Bug	New	Sort out RingElem, RefRingElem, ConstRefRingElem mess	20.0