

## CoCoALib - Issues

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
1809	CoCoALib		Normal	Make ex-syz.C	Anna Maria Bigatti	28 Mar 2024 08:45	Documentation	10
1808	CoCoALib		Normal	New constructor for PolyRing with elimination ordering	Anna Maria Bigatti	28 Mar 2024 07:35	New Function	10
1803	CoCoALib		Normal	Improve trivial operations with ideal whose GBasis is [1]	Anna Maria Bigatti	25 Mar 2024 19:06		0
1797	CoCoALib		Normal	Add a function CleanupGens making some easy cleaning on the generators?		25 Mar 2024 19:16	New Function	0
1793	CoCoALib		Normal	Use ErrorContext instead of string FnName		26 Mar 2024 11:50	Improving	60
1788	CoCoALib		Normal	New MatrixView/function "FirstRows/FirstCols"?	Anna Maria Bigatti	20 Mar 2024 15:53	New Function	100
1786	CoCoALib		Normal	Add new function for IsInRadical for monomial ideals? (RadicalMembership)	Anna Maria Bigatti	01 Mar 2024 18:37	Improving	10
1785	CoCoALib		Normal	Add function IsHomog3(l)?		01 Mar 2024 14:53	New Function	0
1784	CoCoALib		Normal	Add flag IhaveHomogGensValue for ideals in SparsePolyRing?		01 Mar 2024 14:36	Data Structures	0
1780	CoCoALib		Normal	radical for ideals in SparsePolyRing: code in C++	Anna Maria Bigatti	22 Mar 2024 09:13	New Function	100
1778	CoCoALib		Normal	Homogenizer		25 Apr 2024 21:54	New Function	10
1770	CoCoALib		Normal	Evaluate polynomial function/class	John Abbott	16 Mar 2024 21:52	New Function	100
1763	CoCoALib		Normal	implement ideal(R) for zero ideal, with no generators?	Anna Maria Bigatti	16 Feb 2024 18:01	New Function	100
1755	CoCoALib		High	CheckForInterrupt: give more info?	John Abbott	22 Dec 2023 20:56	Improving	100
1748	CoCoALib		Normal	July 2023	John Abbott	08 Mar 2024 08:29	Various	0
1743	CoCoALib		Normal	Implement Truncated GBases for homogeneous input	Anna Maria Bigatti	19 May 2023 15:42	New Function	0
1742	CoCoALib		Normal	MinGens could be faster	Anna Maria Bigatti	18 May 2023 13:44	Improving	10
1723	CoCoALib		Normal	New fn CoprimePart, OddPart: naming question	John Abbott	07 Mar 2023 20:27	New Function	100
1715	CoCoALib		Low	ProductBigInt (also ProductBigRat???)		23 Jan 2024 22:14	New Function	0
1706	CoCoALib		Normal	slimgb: Brickenstein, singular		30 Oct 2022 20:30	Improving	0
1702	CoCoALib		Low	Use C++ attributes		22 Apr 2024 21:26	Tidying	10
1694	CoCoALib		Normal	New expv/exponents function?	John Abbott	09 Mar 2023 21:48	New Function	100
1692	CoCoALib		Normal	Suggestion: Add "JumpTo" function to prime iterators		15 Feb 2024 22:39	Improving	10
1684	CoCoALib		Normal	RandomNBitPrime - new fn	John Abbott	08 Aug 2022 20:08	New Function	100
1676	CoCoALib		Normal	txt2tags: include in source distribution?	John Abbott	04 Nov 2022 14:31	Documentation	100
1670	CoCoALib		Normal	Build also dynamic/shared library for CoCoALib?		07 Mar 2024 21:33	Portability	0
1668	CoCoALib		Normal	Generalize prim		31 Jan 2024 22:03	Improving	0
1667	CoCoALib		Urgent	GBasis over ZZ: port to CoCoALib		26 Mar 2024 17:19	Improving	10
1657	CoCoALib		Normal	Improve CertifyNotPower		31 Jan 2024 22:03	Improving	0
1654	CoCoALib		Normal	New function IsInSymbols		12 May 2023 08:03		0

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1652	CoCoALib		Low	Add LM to cocoalib ?		15 Feb 2024 22:41	New Function	10
1645	CoCoALib		Normal	Implement monic0(f) for the case monic(0)?		16 Feb 2024 09:38	Improving	10
1637	CoCoALib		Low	Intersection of Ideals: has GBasis?		16 Feb 2024 17:25	Improving	0
1635	CoCoALib		Normal	NR for polys with coeffs in PID		16 Feb 2024 09:39	New Function	10
1633	CoCoALib		Normal	Make polynomial multiplication interruptible?	John Abbott	04 Feb 2022 21:24	Improving	100
1619	CoCoALib		Normal	Make saturate available in CoCoALib	Anna Maria Bigatti	22 Mar 2024 10:14	New Function	100
1602	CoCoALib		Low	Sparse matrix (SparseMat)		15 Feb 2024 22:42	New Function	0
1598	CoCoALib		Normal	RingHom: implement phi(X) as apply(phi, X) also for X vector and matrix	Anna Maria Bigatti	18 Feb 2022 15:24	Improving	100
1589	CoCoALib		Normal	IdealOfPoints: allow matrix of points to be defined over "wrong" ring	Anna Maria Bigatti	04 Feb 2022 22:07	Improving	100
1582	CoCoALib		Normal	Factorization in K(a,b)[x,y]		07 Mar 2024 20:23	Improving	0
1580	CoCoALib		Normal	New fn prim for polys	John Abbott	16 Feb 2022 20:45	New Function	100
1559	CoCoALib		Normal	Default ctor for rings		13 Mar 2024 20:42	Improving	10
1532	CoCoALib		Normal	Convenient RingHom pseudo-ctors		07 Mar 2024 21:34	New Function	10
1513	CoCoALib		Normal	Better test for univariate-ness (and better conversion)		16 Mar 2024 21:38	Improving	0
1492	CoCoALib		Low	submat of a submat		16 Feb 2024 17:28	Improving	0
1490	CoCoALib		Normal	New function: MinusOneToPower	John Abbott	06 Oct 2020 09:53	New Function	100
1488	CoCoALib		High	BuiltIn Interreduce-Function	John Abbott	15 Mar 2023 08:40	New Function	100
1485	CoCoALib		Normal	Simple syntax for making a quotient ring?		08 Mar 2023 19:51	Improving	0
1483	CoCoALib		Normal	IsPowerOf2 for rationals	John Abbott	26 Oct 2020 21:38	New Function	100
1482	CoCoALib		Normal	Extended rationals: PlusInfinity and MinusInfinity		16 Feb 2024 18:02	New Function	10
1472	CoCoALib		Low	Idea for for loops		16 Feb 2024 09:55	New Function	10
1470	CoCoALib		Normal	Get indexed indets from a polyring		07 Mar 2024 20:36	New Function	0
1468	CoCoALib		Normal	Adjoin indets to a poly ring		15 Feb 2024 22:45	New Function	10
1466	CoCoALib		Normal	Ops += *= etc for Matrices?	John Abbott	08 Aug 2022 20:01	Improving	100
1457	CoCoALib		Normal	Make SmoothFactor interruptible	John Abbott	26 Oct 2020 21:37	Improving	100
1444	CoCoALib		Normal	HNF: Hermite Normal Form		16 Feb 2024 09:53	New Function	0
1441	CoCoALib		Normal	GFan: port CoCoA_5 functions into CoCoALib	Anna Maria Bigatti	16 Feb 2024 17:54	New Function	0
1437	CoCoALib		Normal	Filling matrix row/col from a vector		15 Feb 2024 22:46	New Function	0
1436	CoCoALib		Low	Flatten for a matrix	John Abbott	29 Oct 2020 21:36	New Function	100
1434	CoCoALib		Normal	GBasisByHomog for DegLex	Anna Maria Bigatti	06 Mar 2020 17:41	Improving	100
1433	CoCoALib		Normal	HilbertDriven Buchberger Algorithm	Anna Maria Bigatti	16 Feb 2024 18:02	New Function	0
1427	CoCoALib		Normal	New function: LawrenceMat	Anna Maria Bigatti	06 Mar 2020 16:35	New Function	100

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1419	CoCoALib		Low	DynamicBitset::lamAll1s		03 Feb 2021 18:18	Improving	0
1417	CoCoALib		Normal	RadicalZeroDim with extra parameter for GBasis timeout	Anna Maria Bigatti	16 Mar 2024 21:42	Improving	20
1405	CoCoALib		Normal	New fn: interreduction	John Abbott	07 Mar 2022 10:07	New Function	100
1395	CoCoALib		Normal	SHA checksum for released code	John Abbott	09 Oct 2020 14:12	Safety	100
1388	CoCoALib		Normal	GlobalManager: create SignalWatcher internally?		01 Mar 2024 09:49	Safety	0
1381	CoCoALib		Normal	Type ideal for ZZ[x[1..n]]		16 Feb 2024 09:47	Data Structures	10
1360	CoCoALib		Normal	configure script: add flags for "only cocoalib" or "both cocoalib and cocoa5" (for boost)	John Abbott	07 Mar 2023 21:00	Makefile	100
1349	CoCoALib		Normal	ideal ctor where given gens are a gbasis		16 Feb 2024 09:52	Improving	10
1347	CoCoALib		Normal	New function: ctor of PPVector with vector<RingElem>	Anna Maria Bigatti	29 Oct 2019 19:44	Improving	100
1339	CoCoALib		Normal	All PPs of given wdeg		16 Oct 2019 14:04	New Function	0
1332	CoCoALib		Normal	New function: vector of RingElem from string -- in CoCoALib	Anna Maria Bigatti	29 Oct 2019 16:21	New Function	100
1330	CoCoALib		Normal	New syntax for NewQuotientRing	Anna Maria Bigatti	15 Oct 2019 17:52	Improving	100
1329	CoCoALib		Normal	New syntax for creating homomorphisms (PolyAlgebraHom)	Anna Maria Bigatti	09 Nov 2020 10:03	Improving	100
1323	CoCoALib		Normal	Improve RealRoots: compute sqfr decomp		30 Sep 2019 16:14	Improving	0
1306	CoCoALib		Normal	exgcd over integers (ZZ)		08 Mar 2024 17:57	New Function	20
1301	CoCoALib		Normal	New function primorial	John Abbott	14 Oct 2019 15:10	New Function	100
1299	CoCoALib		Normal	New fn ConstantTerm?	John Abbott	30 Apr 2020 14:57	New Function	100
1297	CoCoALib		Normal	New fn: FixedDivisor (formerly IntrinsicContent)	John Abbott	17 Oct 2019 23:23	New Function	100
1283	CoCoALib		Normal	Printing for (prime) finite fields	John Abbott	10 Oct 2019 18:46	Improving	100
1282	CoCoALib		Normal	subresultant		08 Mar 2024 17:54	New Function	20
1278	CoCoALib		Normal	Port old "clever" code for matrix determinant over ZZ to CoCoALib		03 May 2019 11:42	New Function	0
1277	CoCoALib		Normal	Gaussian row reduction	John Abbott	12 Feb 2020 15:26	New Function	100
1269	CoCoALib		Normal	Ideal Ops: sort-cuts for trivial args?		04 Apr 2019 15:07	Improving	0
1267	CoCoALib		Normal	Ideal equality		09 Apr 2019 17:48	Improving	10
1254	CoCoALib		Normal	New function: MinPoly for pseudo-zero-dimensional ideals	Anna Maria Bigatti	07 Mar 2024 20:25	New Function	0
1251	CoCoALib		Normal	New function: radical for monomial ideal	Anna Maria Bigatti	15 Oct 2019 15:29	New Function	100
1249	CoCoALib		Normal	principal ideal has a Gbasis	Anna Maria Bigatti	10 Oct 2019 19:12	Improving	100
1235	CoCoALib		Normal	FreeModule: get canonical basis	Anna Maria Bigatti	14 Feb 2022 18:25	New Function	100
1227	CoCoALib		Normal	exgcd; solve Bezout equation		29 Aug 2019 14:55	New Function	0
1219	CoCoALib		Normal	Frobby version number		08 Mar 2023 19:40	Documentation	10
1218	CoCoALib		Normal	32-bit or 64-bit preprocessor macro?	John Abbott	22 Apr 2024 20:21	Tidying	100
1212	CoCoALib		Normal	New function: GBasisByHomog	Anna Maria Bigatti	22 Mar 2024 14:32	New Function	100

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1210	CoCoALib		Normal	New Fn: make public "coefficients" (of poly wrt a given PP basis)	John Abbott	08 Aug 2022 20:41	New Function	100
1209	CoCoALib		High	New function: HasPositiveGrading	Anna Maria Bigatti	03 Oct 2019 10:43	New Function	100
1207	CoCoALib		Normal	New function: SubmoduleOfGBasis		18 Mar 2024 09:33	New Function	0
1206	CoCoALib		Normal	syz, SyzOfGens: which shifts for zero?	Anna Maria Bigatti	28 Mar 2024 10:15	Maths Bugs	100
1203	CoCoALib		Normal	factor over algebraic extensions	Anna Maria Bigatti	31 Jul 2018 13:13	Improving	100
1198	CoCoALib		Normal	Non-standard DegRevLex (NonStdDegRevLex, WDegRevLex)		23 Sep 2019 12:44	New Function	0
1197	CoCoALib		Normal	IsZeroDet: new fn	John Abbott	08 Mar 2024 17:58	New Function	40
1178	CoCoALib		Normal	New function: myPrimaryDecomposition_0dim	Anna Maria Bigatti	03 Aug 2018 17:41	New Function	100
1176	CoCoALib		Normal	interval arithmetic	John Abbott	10 Mar 2023 17:46	New Function	50
1173	CoCoALib		Normal	Upper bound for value of poly in an interval		04 Apr 2018 11:55	New Function	0
1169	CoCoALib		Normal	New function: RandomLinearForm (CoCoALib)	Anna Maria Bigatti	02 Aug 2018 16:59	New Function	100
1167	CoCoALib		Normal	New class VerificationLevel	John Abbott	02 Aug 2018 17:29	New Function	100
1158	CoCoALib		Normal	New function: MinPolyQuotHeuristic --> MinPolyQuot with VerificationLevel	Anna Maria Bigatti	02 Aug 2018 16:42	New Function	100
1155	CoCoALib		Normal	Create a new "prime source" iterator	John Abbott	03 Aug 2018 16:11	New Function	100
1154	CoCoALib		Normal	SmallFpImpl: new ctor arg to say do-not-check-that-arg-is-prime	John Abbott	03 Aug 2018 16:14	New Function	100
1150	CoCoALib		Normal	New fn: transform ideal with ring hom		22 Jun 2020 10:34	New Function	0
1132	CoCoALib		Normal	Canonical homomorphism for (some) polynomial rings?	Anna Maria Bigatti	08 Mar 2024 18:01	New Function	0
1131	CoCoALib		Normal	Sturm sequence	John Abbott	03 Aug 2018 16:05	New Function	100
1126	CoCoALib		Normal	New function: SubmoduleOfMinGens	Anna Maria Bigatti	02 Aug 2018 16:20	New Function	100
1117	CoCoALib		Normal	Better printing of negative coeffs		23 Sep 2019 11:52	Improving	10
1115	CoCoALib		Normal	New class: exterior algebra	John Abbott	31 Jan 2024 21:59	Data Structures	20
1108	CoCoALib		Normal	New fn: IsCoprime (whenever gcd makes sense)	John Abbott	06 Nov 2017 15:27	New Function	100
1103	CoCoALib		Normal	Pseudo-zero-dim ideals	Anna Maria Bigatti	05 Nov 2021 16:09	Improving	30
1102	CoCoALib		Normal	Implement RootBound	John Abbott	06 Nov 2017 15:50	New Function	100
1094	CoCoALib		Normal	Revive code for SelfSaturating GBasis	Anna Maria Bigatti	22 Mar 2024 14:38	New Function	50
1090	CoCoALib		Normal	ExternalLib-MathSAT: first prototype	Anna Maria Bigatti	19 Dec 2017 07:50	New Function	100
1053	CoCoALib		Normal	New function: IdealOfGBasis, IdealOfMinGens in CoCoALib	Anna Maria Bigatti	20 Nov 2017 16:07	New Function	100
1052	CoCoALib		Normal	ReadExpr(P, string) and RingElem(P, string) in CoCoALib	Anna Maria Bigatti	10 Nov 2017 12:34	Improving	100
1050	CoCoALib		Normal	ExternalLibs: function for getting info	John Abbott	28 Apr 2017 23:17	New Function	100
1036	CoCoALib		Normal	LogStream: stream for log output	John Abbott	22 Apr 2017 22:52	Improving	100
1035	CoCoALib		Normal	Improvement: how to sort QuotientBasis?	John Abbott	06 Nov 2017 15:53	Improving	100
1033	CoCoALib		Normal	Split poly into homog parts	John Abbott	09 Nov 2017 13:59	New Function	100

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1030	CoCoALib		Normal	IsInRadical: case of homog ideal	John Abbott	28 Nov 2017 17:56	Improving	100
1022	CoCoALib		Normal	New "LF" function which is based on StdDeg		06 Mar 2017 19:37	New Function	20
1016	CoCoALib		Normal	ReducedGBasis for RingWeyl (and other non-commutative rings)	Anna Maria Bigatti	28 Apr 2017 16:05	Improving	100
1010	CoCoALib		Urgent	C++11: Mario's Hilbert scheme code		20 Feb 2017 13:19	Portability	0
1008	CoCoALib		Normal	square function	John Abbott	28 Apr 2017 09:31	New Function	100
1005	CoCoALib		Normal	Makefile: install target for CoCoALib	John Abbott	03 Aug 2018 17:08	Portability	100
1001	CoCoALib		Normal	CoCoALib: ideas for student projects		18 Feb 2022 16:57	New Function	10
992	CoCoALib		Normal	Poly ring homomorphism to change ordering		13 Dec 2016 18:04	New Function	0
987	CoCoALib		Normal	GCD: add special case if args are monomials		28 Nov 2016 22:04	Improving	0
979	CoCoALib		Normal	SmallestNonDivisor -- new fn	John Abbott	06 Nov 2017 15:12	New Function	100
974	CoCoALib		Normal	QIR/RealRootRefine: improve behaviour if input interval has "nasty" endpoints		01 Mar 2021 21:25	Improving	10
966	CoCoALib		Normal	New function or explain: first and last for a vector?	Anna Maria Bigatti	14 Feb 2020 10:21	Documentation	100
962	CoCoALib		Normal	General verbose mode?	John Abbott	08 Nov 2017 16:29	Improving	100
961	CoCoALib		Normal	New function: ReducedGBasis	Anna Maria Bigatti	21 Apr 2017 17:08	New Function	100
958	CoCoALib		Normal	New function: multiplicity and dim	Anna Maria Bigatti	08 Mar 2024 18:15	New Function	80
957	CoCoALib		Normal	New function: HasGBasis	Anna Maria Bigatti	29 Apr 2017 08:32	New Function	100
955	CoCoALib		Normal	RandomUnimodularMat - random unimodular matrix (of integers)	John Abbott	18 Nov 2016 22:39	New Function	100
951	CoCoALib		Normal	New function: IsSqFree	John Abbott	18 Nov 2016 23:09	New Function	100
949	CoCoALib		Normal	New function: IdealWithIncrementalGBasis(l, f)	Anna Maria Bigatti	16 Feb 2024 18:03	New Function	0
947	CoCoALib		Normal	IsRadical for ideal?		23 Jan 2024 22:13	New Function	10
937	CoCoALib		Normal	LinDepMill: Mill for linear dependencies	Anna Maria Bigatti	18 Apr 2024 16:38	New Function	10
931	CoCoALib		Normal	GBasis verbose mode	Anna Maria Bigatti	29 Apr 2017 08:36	Improving	100
923	CoCoALib		Normal	Fn to read symbol range (SymbolIRange)		16 Sep 2016 15:04	New Function	0
919	CoCoALib		Normal	Hilbert Driven GBasis		22 May 2017 14:11		0
914	CoCoALib		Normal	New function: quorem for univariate polynomials?		22 Aug 2016 16:45	New Function	0
913	CoCoALib		Normal	Read input from SymbolicData database	Anna Maria Bigatti	02 Aug 2016 10:55	New Function	0
910	CoCoALib		Normal	BigRat: read from a string in "decimal" format?	John Abbott	18 Nov 2016 22:37	Improving	100
904	CoCoALib		Normal	SmallFpDouble: which impl of InvMod to use?		04 Jul 2016 13:45	Improving	0
902	CoCoALib		Normal	New function: FrobeniusMat	Elisa Palezzato	28 Apr 2017 09:31	New Function	100
901	CoCoALib		Normal	New function: PrimaryDecomposition0 in CoCoALib	Anna Maria Bigatti	03 Aug 2018 17:40	New Function	100
900	CoCoALib		Normal	New function: MinPoly of RingElem in quotient ring	Anna Maria Bigatti	03 Aug 2018 17:31	New Function	100

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899	CoCoALib		High	IsMaximal, IsPrimary for IDEAL (in cocoalib)	Anna Maria Bigatti	25 Nov 2017 10:40	New Function	100
898	CoCoALib		High	New function: cardinality of finite field?	Anna Maria Bigatti	08 Mar 2024 17:45	New Function	20
896	CoCoALib		Normal	myIsEqual, myCmp: direct comparisons between RingElem and MachineInt, BigInt and BigRat?		25 Jun 2018 15:31	Improving	10
889	CoCoALib		Normal	configure script: give summary of warnings at end	John Abbott	28 Apr 2017 09:35	Various	100
885	CoCoALib		Normal	IsIrred3: fast 3-way irred test (returning bool3)		30 Apr 2019 17:19	New Function	10
873	CoCoALib		Normal	bool3: add some logical operations?		21 Jun 2016 14:37	New Function	10
872	CoCoALib		Urgent	LinSolve for matrices over FFp	John Abbott	08 Mar 2024 17:36	Improving	30
869	CoCoALib		Normal	SmallFpImpl: different repr for computation and for storage?		22 Apr 2016 15:14	Improving	0
856	CoCoALib		Normal	MantissaAndExponent2 for twin-float	John Abbott	28 Apr 2017 09:30	New Function	100
848	CoCoALib		Normal	Implement MinPoly in CoCoALib	Anna Maria Bigatti	22 Mar 2016 18:02	New Function	100
840	CoCoALib		Normal	GINV: alex basis		31 Mar 2016 13:05	New Function	10
839	CoCoALib		Low	SparsePolyIter: make more compatible with STL		07 Mar 2024 20:01	Improving	10
838	CoCoALib		Normal	Differential algebra		24 Oct 2016 15:32	New Function	10
836	CoCoALib		Normal	SmallFpImpl: export fns for a fixed convention	John Abbott	23 Mar 2016 15:10	New Function	100
835	CoCoALib		Normal	Make Mario's new code threadsafe		09 Dec 2015 16:48	Safety	0
828	CoCoALib		Normal	MachineInt: function for checking that value is greater than some lower limit (and below MAXLONG)	John Abbott	15 Apr 2024 10:08	New Function	20
826	CoCoALib		Normal	Sparse matrices		02 Dec 2015 18:24	Data Structures	0
817	CoCoALib		High	GenRepr in CoCoALib?		17 Nov 2016 14:12	New Function	0
813	CoCoALib		Immediate	Implement "elim" in CoCoALib	Anna Maria Bigatti	18 Mar 2024 15:58	New Function	90
812	CoCoALib		Normal	PPMonoid pseudo-ctor without explicit ordering		24 Nov 2015 18:16	New Function	0
811	CoCoALib		Normal	Add new fn SimplestBinaryRatBetween	John Abbott	23 Mar 2016 15:10	New Function	100
803	CoCoALib		Normal	PPOrdering: use it to compute WDeg?		06 Nov 2017 14:00	New Function	10
802	CoCoALib		Urgent	DivMask: extend interface?	John Abbott	08 Mar 2024 17:36	New Function	50
801	CoCoALib		Normal	Test whether a symbol is in a ring		07 Mar 2024 21:36	New Function	0
800	CoCoALib		Urgent	PPMonoidSparse: impl of sparse PPs	John Abbott	09 Mar 2023 22:15	New Function	100
797	CoCoALib		Normal	SmallFpImpl: make it faster	John Abbott	24 Apr 2024 23:04	Improving	20
796	CoCoALib		Normal	CoCoALib function for radical (or SqFree) of a polynomial	John Abbott	06 Nov 2017 15:31	New Function	100
795	CoCoALib		Normal	Add new fn InvModNoCheck	John Abbott	21 Mar 2016 16:57	New Function	100
780	CoCoALib		Normal	GroebnerFan/ExternalLib-GFan: improve package	Anna Maria Bigatti	21 Apr 2017 11:06	Improving	20
775	CoCoALib		Low	PPMonoid with 1 extra "exponent"?		15 Sep 2015 20:18	Improving	0
765	CoCoALib		Normal	ExternalLib-CDD: (needed by GFan)	Anna Maria Bigatti	11 Sep 2019 13:47	Portability	10
762	CoCoALib		Normal	ExternalLib-GFan: first prototype	Anna Maria Bigatti	24 Mar 2016 08:04	New Function	100

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759	CoCoALib		Normal	Configuration: where to keep source for test compilations?	John Abbott	08 Nov 2017 18:13	Tidying	100
758	CoCoALib		Normal	configure: have option to say to look for external libs		03 Sep 2015 11:41	Improving	10
747	CoCoALib		Normal	New function for making list of symbols (indeterminate names)	John Abbott	01 Feb 2016 14:21	Improving	100
743	CoCoALib		Urgent	Better errors: give supplementary info about the error		15 Mar 2024 18:33	Improving	10
740	CoCoALib		Normal	Addition of sparse (multivariate) polynomials		17 Jun 2016 14:35	Improving	0
738	CoCoALib		Normal	Extend homomorphism to polynomial ring		25 Jun 2015 17:23	New Function	10
735	CoCoALib		Normal	Convert a PPMonoidElem to RingElem with coefficient one	Anna Maria Bigatti	22 Mar 2016 17:59	New Function	100
730	CoCoALib		Normal	Stats in GBMill (GReductor)	Anna Maria Bigatti	20 Nov 2017 16:12	Improving	100
729	CoCoALib		Normal	Betti numbers, betti diagram		14 Jun 2018 15:54	Data Structures	10
728	CoCoALib		Normal	Noncommutative algebra "of solvable type"		09 Jul 2015 08:39	New Function	10
721	CoCoALib		Normal	CheckForInterrupt: string arg to specify where it was called?	John Abbott	01 Jul 2015 18:12	Improving	100
718	CoCoALib		Normal	Insert calls to CheckForInterrupt	Anna Maria Bigatti	22 Apr 2024 21:35	Improving	100
715	CoCoALib		Normal	RandomSubsetIndices, RandomTupleIndices?	John Abbott	30 Jul 2015 17:39	New Function	100
714	CoCoALib		Normal	Interrupt mechanism	John Abbott	28 Jun 2015 20:46	New Function	100
690	CoCoALib		Normal	Fault tolerant rational reconstruction: implement simultaneous version		23 Apr 2015 19:12	New Function	0
689	CoCoALib		Normal	Fault tolerant rational reconstruction: make bad factor publicly accessible	John Abbott	01 Jul 2015 18:04	Improving	100
685	CoCoALib		High	Use DivMask inside QBGenerator		02 Feb 2016 14:16	Tidying	0
682	CoCoALib		Low	PPMonoid: add fn to check for overflow in products		14 Apr 2015 11:23	Safety	0
681	CoCoALib		Low	MemPool: make it easier to get just stats		13 Apr 2015 23:25	Various	0
678	CoCoALib		Normal	Accumulator (like a geobucket)		17 Nov 2016 19:03	New Function	20
667	CoCoALib		Normal	factor: multivariate + finite characteristic		04 Mar 2015 20:08	New Function	0
665	CoCoALib		Normal	Integrate Janet/Pommaret basis code	John Abbott	12 Jun 2018 18:36	New Function	10
664	CoCoALib		Urgent	Impl small non-prime finite fields (using logs)	John Abbott	14 Mar 2023 19:49	New Function	80
661	CoCoALib		Normal	Laurent polynomials		23 Jan 2015 13:50	New Function	0
658	CoCoALib		Urgent	Indets actually in a poly (or vector or matrix)	John Abbott	13 Feb 2020 15:09	New Function	100
651	CoCoALib		Normal	Optimized algorithms for implicitization (slicing algorithm, elim, subalgebra..)		12 Feb 2015 10:33	New Function	10
645	CoCoALib		Normal	Automatic mapping of RingElem: user selectable at run-time (GlobalManager?)	John Abbott	16 Feb 2024 17:41	Safety	100
644	CoCoALib		Normal	Buchberger-Moeller: add option to stop as soon as 1 poly has been found	John Abbott	06 Nov 2017 13:58	New Function	0
639	CoCoALib		Low	Shadow CoCoA namespace to help guarantee portability (without ambiguity)		28 Oct 2014 15:34	Safety	0

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
638	CoCoALib		Normal	Time limit: let user specify time limit for a computation	John Abbott	08 Nov 2017 16:33	New Function	100
630	CoCoALib		Normal	Add graeffe function?	John Abbott	20 Dec 2017 15:51	New Function	100
628	CoCoALib		Normal	Complex twin-floats		22 Sep 2014 18:16	New Function	0
627	CoCoALib		Normal	Gaussian integer and rationals ZZi, QQi		23 Sep 2014 16:30	New Function	0
625	CoCoALib		Normal	NumTheory: sieve of Eratosthenes	John Abbott	11 May 2015 16:05	New Function	100
623	CoCoALib		Normal	Inverse of a matrix over ZZ	Anna Maria Bigatti	11 May 2015 17:54	New Function	100
617	CoCoALib		Normal	configure: check all libraries for compatibility		09 Sep 2014 12:21	Portability	0
598	CoCoALib		Normal	Syzygy for modules: non-homogeneous module	Anna Maria Bigatti	27 Mar 2024 17:31	Improving	40
589	CoCoALib		Normal	Implement gin (generic initial ideal) in cocoalib	Anna Maria Bigatti	15 Jul 2014 18:17	New Function	0
587	CoCoALib		Normal	port to CoCoALib: Homomorphism pkg (ker, IsInjective, IsSurjective..)	John Abbott	03 Aug 2018 18:11	New Function	100
586	CoCoALib		High	BigInt ctor from a machine integer	John Abbott	09 Oct 2015 20:18	Safety	100
585	CoCoALib		Normal	(Hilbert-) quasi-polynomials	John Abbott	29 Jul 2014 11:18	New Function	100
583	CoCoALib		Normal	New function for printing with extra information		07 Jul 2014 11:48	New Function	0
580	CoCoALib		Normal	Example for PPVector: ex-PPVector	Anna Maria Bigatti	31 Jul 2014 12:28	Documentation	100
575	CoCoALib		Normal	Investigate using cmake for configuration	John Abbott	13 Mar 2024 21:19	Portability	10
573	CoCoALib		Normal	Use symbolic links for external libraries	John Abbott	28 Apr 2017 13:37	Portability	100
571	CoCoALib		Normal	CmpAbs for RingElem	John Abbott	17 Jul 2014 14:26	New Function	100
570	CoCoALib		Normal	Allow use of RingElem instead of ring in some functions (e.g. PPM, CoeffRing)		16 Jul 2014 14:43	New Function	0
568	CoCoALib		Normal	Valid symbol heads	John Abbott	10 Jul 2014 14:26	Various	100
565	CoCoALib		Normal	FloatApprox for TwinFloat values?	John Abbott	19 Jul 2016 22:44	New Function	20
564	CoCoALib		Normal	Temporary file for experimentation		16 Jul 2014 14:38	Various	0
562	CoCoALib		Normal	Subrings		29 Sep 2020 13:19	Safety	0
554	CoCoALib		Normal	CoCoALib-Normaliz interface: cannot print a cone	Christof Soeger	28 Jul 2014 21:43	New Function	100
540	CoCoALib		Normal	Progress reporter	John Abbott	20 May 2014 10:34	New Function	100
539	CoCoALib		Low	Functions to clean up a factorization		22 Jan 2024 20:28	New Function	0
533	CoCoALib		Normal	Convert BigInt/BigRat to string	John Abbott	20 May 2014 10:33	New Function	100
526	CoCoALib		Normal	Fn to test if an integer is a power of 2	John Abbott	15 Apr 2014 12:43	New Function	100
520	CoCoALib		High	Compute inverse in quotient ring (i.e. division in algebraic extn)	Anna Maria Bigatti	01 Jul 2015 18:40	New Function	100
516	CoCoALib		Normal	Make squarefreefactor work in multiple polynomial extns		10 Jul 2014 14:21	Tidying	0
515	CoCoALib		Normal	Fn to "flatten" multiple polynomial extns		10 Jul 2014 14:22	New Function	0
496	CoCoALib		Normal	ideal: minimize or minimized?	Anna Maria Bigatti	01 Apr 2014 18:52	New Function	100
482	CoCoALib		Normal	Unique copies of rings -- smart ctor		20 Oct 2015 14:33	Safety	10



#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
459	CoCoALib		Low	LinearSimplify: port to CoCoALib		20 May 2014 09:47	New Function	0
457	CoCoALib		Normal	Zero to the power zero, 0^0	John Abbott	03 Apr 2014 11:50	Maths Bugs	100
442	CoCoALib		Normal	Eigenvectors		09 Jul 2014 18:05	New Function	0
440	CoCoALib		High	Port RealRoots to C++	John Abbott	19 Oct 2016 10:26	New Function	0
437	CoCoALib		Normal	MemPool: order free blocks?		13 Apr 2015 23:31	Tidying	10
436	CoCoALib		Normal	Improve UPoly eval at BigRat for binary rational		01 Aug 2014 08:59	New Function	0
431	CoCoALib		Normal	NewPolyRing_DMPI has no constructor with a predefined PPM	John Abbott	17 Apr 2014 18:39	New Function	100
430	CoCoALib		Normal	Use -fopenmp flag when compiling CoCoALib with libnormaliz	John Abbott	17 Apr 2014 09:54	Portability	100
426	CoCoALib		Normal	ConvertTo with optional arg to give more helpful error message	John Abbott	03 Apr 2014 11:54	Tidying	100
420	CoCoALib		Normal	Allow user to give a name to a ring		13 May 2015 09:55	Improving	0
416	CoCoALib		Normal	New fn: NumPartitions	John Abbott	03 Apr 2014 11:53	New Function	100
409	CoCoALib		High	Minimal syzygies (optimized implementation)	Anna Maria Bigatti	31 Jul 2014 12:36	New Function	0
407	CoCoALib		Normal	RingElem ctor from mpz_t (from Bruns)	John Abbott	03 Apr 2014 11:53	New Function	100
400	CoCoALib		Normal	add myJBMill member field to ideal		15 Sep 2014 12:04	New Function	0
399	CoCoALib		High	add myHilbertSeries member field to ideal and (sub)module	Anna Maria Bigatti	30 Jul 2014 17:04	New Function	0
390	CoCoALib		Normal	Store unique copy of QQ[t_1..t_n] (RingQQt) in GlobalManager	John Abbott	29 Oct 2013 14:30	New Function	90
387	CoCoALib		High	implement algorithm(s) for resolutions	Anna Maria Bigatti	30 Jul 2014 17:04	New Function	0
386	CoCoALib		High	add resolution data type	Anna Maria Bigatti	11 Jun 2015 14:58	New Function	10
385	CoCoALib		Urgent	Design new errors using inheritance	John Abbott	09 Feb 2024 10:25	Tidying	40
383	CoCoALib		Normal	Resolution/morse: integrate Mario Albert's code into CoCoALib	John Abbott	31 Jul 2014 14:57	New Function	60
379	CoCoALib		Normal	Iter for subsets/tuples	John Abbott	13 Mar 2024 18:25	Data Structures	100
374	CoCoALib		Immediate	Porting "IdealOfProjectivePoints"	John Abbott	08 Feb 2019 20:56	New Function	100
373	CoCoALib		Normal	add DeleteCol, DeleteRow	Anna Maria Bigatti	17 Apr 2014 09:51	New Function	100
366	CoCoALib		High	function (CoCoALib) for minimal generators (like old Minimalize)	Anna Maria Bigatti	03 Apr 2014 11:52	New Function	100
361	CoCoALib		Normal	implement IsPrime3, IsMaximal3	John Abbott	25 Nov 2017 10:42	New Function	100
357	CoCoALib		Normal	Constructor for vectors? CoCoAVector	Anna Maria Bigatti	12 Feb 2020 14:43	New Function	100
356	CoCoALib		Normal	IsZeroDivisor	Anna Maria Bigatti	17 Apr 2014 09:23	New Function	100
354	CoCoALib		Normal	New function BinRepr (was BinExp, also known as Macaulay representation)	John Abbott	29 May 2013 16:41	New Function	100
342	CoCoALib		Normal	Remove denominators: QQ[x] -> ZZ[x] (and PushBack(coeff, PP))	John Abbott	17 Apr 2014 09:23	New Function	100
340	CoCoALib		Normal	"configure" does not set BOOST if there are multiple copies in "standard" location	John Abbott	28 May 2013 18:41	Makefile	100
337	CoCoALib		Normal	Module homs		31 Jul 2014 12:40	New Function	0

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
320	CoCoALib		Normal	PPMonoid pseudo-ctors without symbol names	John Abbott	05 Mar 2013 18:16	New Function	0
319	CoCoALib		Normal	BOOST -- how it could help in CoCoALib	John Abbott	15 Dec 2017 17:30	Portability	100
315	CoCoALib		Normal	Add doc for ApproxPts2		10 Jul 2014 16:23	Documentation	0
313	CoCoALib		High	Elim(vector<long>) as PPOrderingCtor	Anna Maria Bigatti	22 Mar 2024 18:17	New Function	30
312	CoCoALib		Normal	LongRange(a,b) returning vector of long a..b (included)	Anna Maria Bigatti	03 Apr 2014 11:38	New Function	100
310	CoCoALib		Normal	ordering and grading (weights) matrix	Anna Maria Bigatti	31 Jul 2014 17:50	Renaming	100
304	CoCoALib		High	Module ordering and grading (and shifts)	Anna Maria Bigatti	31 Jul 2014 15:01	New Function	100
303	CoCoALib		Normal	Rows and Columns of a matrix	John Abbott	09 Jan 2020 22:17	New Function	100
300	CoCoALib		Normal	Add fault tolerant rational reconstruction to library	John Abbott	03 Jun 2013 17:31	New Function	100
298	CoCoALib		High	Valgrind: keep CoCoALib at 0 memory leaks	Anna Maria Bigatti	01 Aug 2014 08:21	Safety	100
289	CoCoALib		Normal	PrimeField -- new fn?		01 Aug 2014 08:59	New Function	0
283	CoCoALib		Normal	Rational approximation	John Abbott	18 Feb 2013 20:19	New Function	100
282	CoCoALib		Normal	Global setting: to use IsProbPrime in place of IsPrime		01 Aug 2014 08:59		0
281	CoCoALib		Normal	Store unique copy of FF(p) in GlobalManager		04 Apr 2014 17:10		0
278	CoCoALib		Normal	add CoeffVecWRT to cocoalib	John Abbott	29 Oct 2013 14:50	New Function	100
269	CoCoALib		Normal	PPMonoids: check for exponent overflow in power function	John Abbott	28 May 2013 18:16	Safety	100
261	CoCoALib		High	Review the utility of RefRingElem	John Abbott	18 Feb 2013 12:50	Safety	100
259	CoCoALib		Normal	Squarefree(?) GCD-free basis	John Abbott	09 Jan 2020 22:22	New Function	100
258	CoCoALib		Normal	Multivariate lifting		01 Aug 2014 08:59		0
257	CoCoALib		Normal	Transcribe C4 code for GCD in QQ[x]		01 Aug 2014 08:59		0
255	CoCoALib		Normal	Use BOOST lib default location if possible	John Abbott	06 Nov 2017 15:49	Portability	100
253	CoCoALib		Normal	W.Brun's wish list	John Abbott	14 Mar 2023 20:09	Various	100
248	CoCoALib		Normal	IsDivisible for RingElem with nice interface	Anna Maria Bigatti	01 Apr 2014 19:13	New Function	100
246	CoCoALib		Normal	Approx QIR		04 Apr 2014 17:16	New Function	0
244	CoCoALib		Normal	Rings: default ctor & assignment	John Abbott	18 Feb 2013 13:03	Various	100
241	CoCoALib		Normal	AreMonomials	Anna Maria Bigatti	01 Oct 2012 18:26	New Function	100
236	CoCoALib		Normal	Add homog (homogenized) for ideal	Anna Maria Bigatti	23 May 2013 08:26	New Function	100
233	CoCoALib		Normal	AsINT and AsRAT -- ConvertTo<BigInt> and ConvertTo<BigRat>	John Abbott	02 Apr 2014 09:19	New Function	100
229	CoCoALib		Normal	Generator for random ring elements		01 Aug 2014 08:59	New Function	0
227	CoCoALib		Normal	HilbertBasis from Normaliz: full-lattice or not?		31 Jul 2014 12:39	New Function	0
224	CoCoALib		Normal	Leading form	Anna Maria Bigatti	27 Jan 2014 14:59	New Function	100
223	CoCoALib		Normal	Automatic mapping of RingElems	Anna Maria Bigatti	10 Jul 2014 13:38	New Function	100

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
222	CoCoALib		Normal	Printing polynomials - spaces between terms		14 Mar 2023 21:27	Various	30
221	CoCoALib		High	Better RingElems	John Abbott	18 Feb 2013 13:04	Various	100
219	CoCoALib		Normal	myDeriv for RingDenseUPolyClean still missing	Anna Maria Bigatti	02 Apr 2014 08:49	New Function	100
218	CoCoALib		Normal	CoCoALib normaliz interface	Christof Soeger	31 Jul 2014 17:00	Various	100
215	CoCoALib		Normal	Janet Bases: check and include code in CoCoALib (first prototype)	Anna Maria Bigatti	24 Mar 2016 11:50	New Function	100
213	CoCoALib		Normal	test-Normaliz1.C	Christof Soeger	01 Oct 2012 15:43	Various	100
211	CoCoALib		Normal	NBM: add SparsePolyRing as argument for ordering	John Abbott	18 Feb 2013 16:48	New Function	100
210	CoCoALib		Normal	Normaliz: "double" cone for speed and safety	John Abbott	18 Feb 2013 16:25	New Function	100
209	CoCoALib		High	ReadExpr: input polynomials in CoCoALib	Anna Maria Bigatti	27 Aug 2014 18:38	New Function	100
206	CoCoALib		Urgent	Matrix equation solving: LinKer		22 Mar 2024 09:42	New Function	30
203	CoCoALib		High	Function to get the Hilbert Polynomial ring from GlobalManager	Anna Maria Bigatti	03 Apr 2014 11:52	New Function	100
202	CoCoALib		Normal	MatrixView/function for viewing a single row or column (RowMat, ColMat)	John Abbott	20 Mar 2024 14:09	Data Structures	100
180	CoCoALib		Normal	GlobalManager: registration of global variables	John Abbott	08 Nov 2017 17:16	Safety	100
174	CoCoALib		Normal	IsStdGraded: add for PPOrdering, PPMonoid, (Sparse)PolyRing..		01 Aug 2014 08:59	New Function	0
167	CoCoALib		Normal	Integer operations	John Abbott	31 May 2012 17:39	Tidying	100
165	CoCoALib		Normal	FractionField -- only of TrueGCDDomain?	John Abbott	11 Jul 2014 12:05	Tidying	100
157	CoCoALib		Normal	Separate ThreadsafeCounter from symbol.C	John Abbott	18 Jun 2012 16:11	Tidying	100
156	CoCoALib		Normal	Brand new symbol(s)		28 May 2012 16:13	New Function	100
153	CoCoALib		Normal	Shorter simpler names for some bool3 values and functions		07 Apr 2014 14:28	Renaming	100
152	CoCoALib		Low	Replace bool3 by tribool	John Abbott	29 Jan 2021 20:12	Data Structures	100
151	CoCoALib		Normal	Iterated CanonicalHom		13 May 2015 09:58	New Function	0
150	CoCoALib		Normal	RingOf rather than owner? (and than AmbientRing, ...)		30 Jul 2014 17:59	Renaming	10
147	CoCoALib	Feature #143: Buchberger-Moeller (parent task)	Urgent	Buchberger-Moeller: impl via modular reduction	John Abbott	10 Jul 2014 14:18	New Function	20
146	CoCoALib		Normal	Buchberger-Moeller: input conversions		10 Jul 2014 14:17	New Function	0
145	CoCoALib	Feature #143: Buchberger-Moeller (parent task)	Urgent	Buchberger-Moeller: fast modular impl	John Abbott	10 Jul 2014 14:17	New Function	0
144	CoCoALib	Feature #143: Buchberger-Moeller (parent task)	Normal	Buchberger-Moeller: generic impl	John Abbott	29 Oct 2013 14:50	New Function	100
143	CoCoALib		Urgent	Buchberger-Moeller (parent task)	John Abbott	10 Jul 2014 14:16	New Function	38

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
142	CoCoALib		Normal	Improve threadsafety		21 Mar 2024 20:29	Safety	50
139	CoCoALib		Normal	Usefulness of ring casting fns (remove AsPolyRing, etc.)	John Abbott	01 Aug 2014 18:53	Tidying	100
138	CoCoALib		Normal	Automatic conversion from bool3 to bool?	John Abbott	15 Apr 2014 12:54	Safety	100
134	CoCoALib		Normal	Convenience ring ctors and homs		11 Jul 2014 12:06	New Function	0
127	CoCoALib		Normal	Convert DUPFF code to C++	John Abbott	28 Sep 2022 15:04	New Function	50
126	CoCoALib		Normal	New datastructures directory		13 May 2015 09:56	Data Structures	0
125	CoCoALib		Normal	Matrix equation solving; linear system solving	John Abbott	18 Mar 2024 10:00	New Function	50
124	CoCoALib		Normal	change long args in matrices into Machinelnt (?)	John Abbott	30 May 2013 15:55	Safety	100
123	CoCoALib		Normal	IdealOfPoints with generic coeffs		09 Jul 2014 18:15	New Function	0
122	CoCoALib		Normal	Porting "LinKer"	John Abbott	15 Jan 2021 21:10	New Function	100
121	CoCoALib		Urgent	Porting "IdealOfPoints"	John Abbott	29 May 2013 16:58	New Function	100
116	CoCoALib		Urgent	ordering matrices with rational coefficients	Anna Maria Bigatti	02 Apr 2012 15:22	New Function	100
113	CoCoALib		Normal	Introduce PartialHom	John Abbott	09 Jul 2014 18:04	New Function	10
107	CoCoALib		Normal	Recognizing finite fields	John Abbott	27 Jun 2016 08:48	New Function	100
92	CoCoALib		Normal	Error Codes		19 Apr 2017 08:31	Various	0
91	CoCoALib		High	Return type & name for "indets" of a PP	John Abbott	14 Feb 2020 13:26	New Function	100
84	CoCoALib		Normal	Names for random streams	John Abbott	23 May 2013 18:44	Renaming	100
82	CoCoALib		Normal	C++11 compatibility questions	John Abbott	26 Sep 2022 20:34	Portability	100
72	CoCoALib	Feature #68: cleanup doc for matrix, MatrixViews, *Matrix*,.....	Low	MatByRows, MatByCols	John Abbott	31 Jul 2014 14:54	New Function	100
71	CoCoALib	Feature #68: cleanup doc for matrix, MatrixViews, *Matrix*,.....	Normal	ZeroMat & FilledMat	John Abbott	15 Apr 2014 16:13	Tidying	100
69	CoCoALib	Feature #46: Squarefree factorization - univariate polynomials, char $p > 0$	Normal	p-th root	John Abbott	04 Jul 2012 10:48	New Function	100
68	CoCoALib		Normal	cleanup doc for matrix, MatrixViews, *Matrix*,.....	Anna Maria Bigatti	31 Jul 2014 16:56	Documentation	100
62	CoCoALib		Normal	polynomial coefficient extraction w.r.t. single variable -- dense output	John Abbott	01 Aug 2014 16:25	New Function	100
61	CoCoALib		Normal	Conversion functions -- documentation	John Abbott	02 Apr 2014 17:43	Documentation	100
51	CoCoALib		Normal	polynomial coefficient extraction w.r.t. variable	John Abbott	27 May 2013 18:19	New Function	100
50	CoCoALib		Normal	Polynomial content	John Abbott	27 May 2013 18:16	New Function	100

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49	CoCoALib	Feature #47: Squarefree factorization - multivariate polynomials	Normal	Squarefree factorization - multivariate polynomials, char $p > 0$	John Abbott	29 Oct 2013 12:35	New Function	100
48	CoCoALib	Feature #47: Squarefree factorization - multivariate polynomials	Normal	Squarefree factorization - multivariate polynomials, char 0	John Abbott	05 Nov 2015 16:16	New Function	100
47	CoCoALib	Feature #43: Squarefree factorization - for polynomials	Normal	Squarefree factorization - multivariate polynomials	John Abbott	02 Apr 2014 18:57	New Function	100
46	CoCoALib	Feature #44: Squarefree factorization - univariate polynomials	Normal	Squarefree factorization - univariate polynomials, char $p > 0$	John Abbott	29 Oct 2013 12:35	New Function	100
45	CoCoALib	Feature #44: Squarefree factorization - univariate polynomials	Normal	Squarefree factorization - univariate polynomials, char 0	John Abbott	29 Oct 2013 12:34	New Function	100
44	CoCoALib	Feature #43: Squarefree factorization - for polynomials	Normal	Squarefree factorization - univariate polynomials	John Abbott	29 Oct 2013 12:34	New Function	100
43	CoCoALib	Feature #39: Squarefree factorization	Normal	Squarefree factorization - for polynomials	John Abbott	29 Oct 2013 12:33	New Function	100
42	CoCoALib	Feature #39: Squarefree factorization	Normal	Squarefree factorization - generic case	John Abbott	29 Oct 2013 12:32	New Function	100
41	CoCoALib	Feature #39: Squarefree factorization	Normal	Squarefree factorization - overhead	John Abbott	29 Oct 2013 12:32	New Function	100
40	CoCoALib	Feature #39: Squarefree factorization	Normal	Squarefree factorization - Alessio d'Ali`	John Abbott	29 Oct 2013 12:32	New Function	100
39	CoCoALib		Normal	Squarefree factorization	John Abbott	02 Apr 2014 18:58	New Function	100
37	CoCoALib		High	matrix constructors	John Abbott	15 Dec 2017 15:18	Data Structures	100
30	CoCoALib		High	SwapRows, Cols	Anna Maria Bigatti	05 Jul 2012 10:40	New Function	100
28	CoCoALib		Normal	rename RingQ, RingZ --> RingQQ, RingZZ	Anna Maria Bigatti	10 Feb 2012 18:41	Renaming	100
24	CoCoALib		Normal	object files collected in one directory	Anna Maria Bigatti	14 Oct 2020 15:35	Makefile	100
17	CoCoALib		Normal	implement "binomial" (coefficient) for RingElem	John Abbott	17 Apr 2014 09:22	New Function	100
11	CoCoALib		Normal	Bareiss algorithm	John Abbott	10 Oct 2019 18:45	New Function	100
5	CoCoALib		Normal	Coefficient extraction	John Abbott	17 Apr 2014 09:22	New Function	100
4	CoCoALib		Normal	Squarefree GCD-free basis	John Abbott	27 Jan 2020 17:58	New Function	100
3	CoCoALib		Normal	implement creation of a PPMonoidElement from vector<BigInt>	John Abbott	15 Mar 2013 17:35	New Function	100