

## CoCoALib - Issues

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
1788	CoCoALib		Normal	New MatrixView/function "FirstRows/FirstCols"?	Anna Maria Bigatti	20 Mar 2024 15:53	New Function	100
1780	CoCoALib		Normal	radical for ideals in SparsePolyRing: code in C++	Anna Maria Bigatti	22 Mar 2024 09:13	New Function	100
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
1723	CoCoALib		Normal	New fn CoprimePart, OddPart: naming question	John Abbott	07 Mar 2023 20:27	New Function	100
1694	CoCoALib		Normal	New expv/exponents function?	John Abbott	09 Mar 2023 21:48	New Function	100
1684	CoCoALib		Normal	RandomNBitPrime - new fn	John Abbott	08 Aug 2022 20:08	New Function	100
1619	CoCoALib		Normal	Make saturate available in CoCoALib	Anna Maria Bigatti	22 Mar 2024 10:14	New Function	100
1580	CoCoALib		Normal	New fn prim for polys	John Abbott	16 Feb 2022 20:45	New Function	100
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
1483	CoCoALib		Normal	IsPowerOf2 for rationals	John Abbott	26 Oct 2020 21:38	New Function	100
1436	CoCoALib		Low	Flatten for a matrix	John Abbott	29 Oct 2020 21:36	New Function	100
1427	CoCoALib		Normal	New function: LawrenceMat	Anna Maria Bigatti	06 Mar 2020 16:35	New Function	100
1405	CoCoALib		Normal	New fn: interreduction	John Abbott	07 Mar 2022 10:07	New Function	100
1332	CoCoALib		Normal	New function: vector of RingElem from string -- in CoCoALib	Anna Maria Bigatti	29 Oct 2019 16:21	New Function	100
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
1277	CoCoALib		Normal	Gaussian row reduction	John Abbott	12 Feb 2020 15:26	New Function	100
1251	CoCoALib		Normal	New function: radical for monomial ideal	Anna Maria Bigatti	15 Oct 2019 15:29	New Function	100
1235	CoCoALib		Normal	FreeModule: get canonical basis	Anna Maria Bigatti	14 Feb 2022 18:25	New Function	100
1212	CoCoALib		Normal	New function: GBasisByHomog	Anna Maria Bigatti	22 Mar 2024 14:32	New Function	100
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
1178	CoCoALib		Normal	New function: myPrimaryDecomposition_0dim	Anna Maria Bigatti	03 Aug 2018 17:41	New Function	100
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

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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
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
1108	CoCoALib		Normal	New fn: IsCoprime (whenever gcd makes sense)	John Abbott	06 Nov 2017 15:27	New Function	100
1102	CoCoALib		Normal	Implement RootBound	John Abbott	06 Nov 2017 15:50	New Function	100
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
1050	CoCoALib		Normal	ExternalLibs: function for getting info	John Abbott	28 Apr 2017 23:17	New Function	100
1033	CoCoALib		Normal	Split poly into homog parts	John Abbott	09 Nov 2017 13:59	New Function	100
1008	CoCoALib		Normal	square function	John Abbott	28 Apr 2017 09:31	New Function	100
979	CoCoALib		Normal	SmallestNonDivisor -- new fn	John Abbott	06 Nov 2017 15:12	New Function	100
961	CoCoALib		Normal	New function: ReducedGBasis	Anna Maria Bigatti	21 Apr 2017 17:08	New Function	100
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
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
899	CoCoALib		High	IsMaximal, IsPrimary for IDEAL (in cocoalib)	Anna Maria Bigatti	25 Nov 2017 10:40	New Function	100
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
836	CoCoALib		Normal	SmallFpImpl: export fns for a fixed convention	John Abbott	23 Mar 2016 15:10	New Function	100
811	CoCoALib		Normal	Add new fn SimplestBinaryRatBetween	John Abbott	23 Mar 2016 15:10	New Function	100
800	CoCoALib		Urgent	PPMonoidSparse: impl of sparse PPs	John Abbott	09 Mar 2023 22:15	New Function	100
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
762	CoCoALib		Normal	ExternalLib-GFan: first prototype	Anna Maria Bigatti	24 Mar 2016 08:04	New Function	100
735	CoCoALib		Normal	Convert a PPMonoidElem to RingElem with coefficient one	Anna Maria Bigatti	22 Mar 2016 17:59	New Function	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
658	CoCoALib		Urgent	Indets actually in a poly (or vector or matrix)	John Abbott	13 Feb 2020 15:09	New Function	100
638	CoCoALib		Normal	Time limit: let user specify time limit for a computation	John Abbott	08 Nov 2017 16:33	New Function	100

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630	CoCoALib		Normal	Add graeffe function?	John Abbott	20 Dec 2017 15:51	New Function	100
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
602	CoCoALib		Normal	OrdMat: should it be a reference to a MatrixView in all PPOrderings?	John Abbott	23 Mar 2016 15:24	New Function	100
587	CoCoALib		Normal	port to CoCoALib: Homomorphism pkg (ker, IsInjective, IsSurjective..)	John Abbott	03 Aug 2018 18:11	New Function	100
585	CoCoALib		Normal	(Hilbert-) quasi-polynomials	John Abbott	29 Jul 2014 11:18	New Function	100
584	CoCoALib		Normal	BaseRing for all rings	John Abbott	31 Jul 2014 16:55	New Function	100
571	CoCoALib		Normal	CmpAbs for RingElem	John Abbott	17 Jul 2014 14:26	New Function	100
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
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
496	CoCoALib		Normal	ideal: minimize or minimized?	Anna Maria Bigatti	01 Apr 2014 18:52	New Function	100
431	CoCoALib		Normal	NewPolyRing_DMPI has no constructor with a predefined PPM	John Abbott	17 Apr 2014 18:39	New Function	100
416	CoCoALib		Normal	New fn: NumPartitions	John Abbott	03 Apr 2014 11:53	New Function	100
407	CoCoALib		Normal	RingElem ctor from mpz_t (from Bruns)	John Abbott	03 Apr 2014 11:53	New Function	100
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
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
349	CoCoALib		Urgent	IdealOfPoints: gens are actually a GBasis	Anna Maria Bigatti	29 Oct 2013 13:39	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
335	CoCoALib		Urgent	Equality of (sub)modules	Anna Maria Bigatti	29 Oct 2013 13:33	New Function	100

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320	CoCoALib		Normal	PPMonoid pseudo-ctors without symbol names	John Abbott	05 Mar 2013 18:16	New Function	0
312	CoCoALib		Normal	LongRange(a,b) returning vector of long a..b (included)	Anna Maria Bigatti	03 Apr 2014 11:38	New Function	100
311	CoCoALib		Immediate	XelMat, StdDegRevLexMat, ... should be MatrixView	John Abbott	20 Jan 2017 15:16	New Function	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
283	CoCoALib		Normal	Rational approximation	John Abbott	18 Feb 2013 20:19	New Function	100
278	CoCoALib		Normal	add CoeffVecWRT to coocalib	John Abbott	29 Oct 2013 14:50	New Function	100
259	CoCoALib		Normal	Squarefree(?) GCD-free basis	John Abbott	09 Jan 2020 22:22	New Function	100
254	CoCoALib		Normal	How to return a Hilbert Series in CoCoALib	John Abbott	17 Apr 2014 15:19	New Function	100
248	CoCoALib		Normal	IsDivisible for RingElem with nice interface	Anna Maria Bigatti	01 Apr 2014 19:13	New Function	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
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
219	CoCoALib		Normal	myDeriv for RingDenseUPolyClean still missing	Anna Maria Bigatti	02 Apr 2014 08:49	New Function	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
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
203	CoCoALib		High	Function to get the Hilbert Polynomial ring from GlobalManager	Anna Maria Bigatti	03 Apr 2014 11:52	New Function	100
156	CoCoALib		Normal	Brand new symbol(s)		28 May 2012 16:13	New Function	100
144	CoCoALib	Feature #143: Buchberger-Moeller (parent task)	Normal	Buchberger-Moeller: generic impl	John Abbott	29 Oct 2013 14:50	New Function	100
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
107	CoCoALib		Normal	Recognizing finite fields	John Abbott	27 Jun 2016 08:48	New Function	100
91	CoCoALib		High	Return type & name for "indets" of a PP	John Abbott	14 Feb 2020 13:26	New Function	100

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72	CoCoALib	Feature #68: cleanup doc for matrix, MatrixViews, *Matrix*,....	Low	MatByRows, MatByCols	John Abbott	31 Jul 2014 14:54	New Function	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
62	CoCoALib		Normal	polynomial coefficient extraction w.r.t. single variable -- dense output	John Abbott	01 Aug 2014 16:25	New Function	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
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
30	CoCoALib		High	SwapRows, Cols	Anna Maria Bigatti	05 Jul 2012 10:40	New Function	100
17	CoCoALib		Normal	implement "binomial" (coefficient) for RingElem	John Abbott	17 Apr 2014 09:22	New Function	100

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15	CoCoALib		High	Adjoint of a non-invertible matrix	John Abbott	16 Sep 2021 13:48	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