

## CoCoALib - Issues

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
1808	CoCoALib		Normal	New constructor for PolyRing with elimination ordering	Anna Maria Bigatti	28 Mar 2024 07:35	New Function	10
1797	CoCoALib		Normal	Add a function CleanupGens making some easy cleaning on the generators?		25 Mar 2024 19:16	New Function	0
1785	CoCoALib		Normal	Add function IsHomog3(l)?		01 Mar 2024 14:53	New Function	0
1778	CoCoALib		Normal	Homogenizer		08 Feb 2024 22:08	New Function	10
1743	CoCoALib		Normal	Implement Truncated GBases for homogeneous input	Anna Maria Bigatti	19 May 2023 15:42	New Function	0
1715	CoCoALib		Low	ProductBigInt (also ProductBigRat???)		23 Jan 2024 22:14	New Function	0
1652	CoCoALib		Low	Add LM to cocoalib ?		15 Feb 2024 22:41	New Function	10
1635	CoCoALib		Normal	NR for polys with coeffs in PID		16 Feb 2024 09:39	New Function	10
1602	CoCoALib		Low	Sparse matrix (SparseMat)		15 Feb 2024 22:42	New Function	0
1532	CoCoALib		Normal	Convenient RingHom pseudo-ctors		07 Mar 2024 21:34	New Function	10
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
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
1433	CoCoALib		Normal	HilbertDriven Buchberger Algorithm	Anna Maria Bigatti	16 Feb 2024 18:02	New Function	0
1339	CoCoALib		Normal	All PPs of given wdeg		16 Oct 2019 14:04	New Function	0
1306	CoCoALib		Normal	exgcd over integers (ZZ)		08 Mar 2024 17:57	New Function	20
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
1254	CoCoALib		Normal	New function: MinPoly for pseudo-zero-dimensional ideals	Anna Maria Bigatti	07 Mar 2024 20:25	New Function	0
1227	CoCoALib		Normal	exgcd; solve Bezout equation		29 Aug 2019 14:55	New Function	0
1207	CoCoALib		Normal	New function: SubmoduleOfGBasis		18 Mar 2024 09:33	New Function	0
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
1176	CoCoALib		Normal	interval arithmetic	John Abbott	10 Mar 2023 17:46	New Function	50

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1173	CoCoALib		Normal	Upper bound for value of poly in an interval		04 Apr 2018 11:55	New Function	0
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
1094	CoCoALib		Normal	Revive code for SelfSaturating GBasis	Anna Maria Bigatti	22 Mar 2024 14:38	New Function	50
1022	CoCoALib		Normal	New "LF" function which is based on StdDeg		06 Mar 2017 19:37	New Function	20
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
958	CoCoALib		Normal	New function: multiplicity and dim	Anna Maria Bigatti	08 Mar 2024 18:15	New Function	80
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
923	CoCoALib		Normal	Fn to read symbol range (SymbolRange)		16 Sep 2016 15:04	New Function	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
898	CoCoALib		High	New function: cardinality of finite field?	Anna Maria Bigatti	08 Mar 2024 17:45	New Function	20
885	CoCoALib		Normal	Islrred3: 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
840	CoCoALib		Normal	GINV: alex basis		31 Mar 2016 13:05	New Function	10
838	CoCoALib		Normal	Differential algebra		24 Oct 2016 15:32	New Function	10
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
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
803	CoCoALib		Normal	PPOrdering: use it to compute WDdeg?		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
738	CoCoALib		Normal	Extend homomorphism to polynomial ring		25 Jun 2015 17:23	New Function	10

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728	CoCoALib		Normal	Noncommutative algebra "of solvable type"		09 Jul 2015 08:39	New Function	10
703	CoCoALib		Normal	Add more operations between modules (CoCoALib)	Anna Maria Bigatti	27 Oct 2017 11:53	New Function	10
690	CoCoALib		Normal	Fault tolerant rational reconstruction: implement simultaneous version		23 Apr 2015 19:12	New Function	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
651	CoCoALib		Normal	Optimized algorithms for implicitization (slicing algorithm, elim, subalgebra..)		12 Feb 2015 10:33	New Function	10
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
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
620	CoCoALib		Normal	Redesign CRTMill	John Abbott	21 Mar 2016 14:30	New Function	20
589	CoCoALib		Normal	Implement gin (generic initial ideal) in cocoalib	Anna Maria Bigatti	15 Jul 2014 18:17	New Function	0
583	CoCoALib		Normal	New function for printing with extra information		07 Jul 2014 11:48	New Function	0
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
565	CoCoALib		Normal	FloatApprox for TwinFloat values?	John Abbott	19 Jul 2016 22:44	New Function	20
539	CoCoALib		Low	Functions to clean up a factorization		22 Jan 2024 20:28	New Function	0
515	CoCoALib		Normal	Fn to "flatten" multiple polynomial extns		10 Jul 2014 14:22	New Function	0
513	CoCoALib		High	Quick/correct flag for bool3 fns		10 Jul 2014 16:30	New Function	10
459	CoCoALib		Low	LinearSimplify: port to CoCoALib		20 May 2014 09:47	New Function	0
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
436	CoCoALib		Normal	Improve UPoly eval at BigRat for binary rational		01 Aug 2014 08:59	New Function	0
409	CoCoALib		High	Minimal syzygies (optimized implementation)	Anna Maria Bigatti	31 Jul 2014 12:36	New Function	0
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

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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
383	CoCoALib		Normal	Resolution/morse: integrate Mario Albert's code into CoCoALib	John Abbott	31 Jul 2014 14:57	New Function	60
337	CoCoALib		Normal	Module homs		31 Jul 2014 12:40	New Function	0
313	CoCoALib		High	Elim(vector<long>) as PPOrderingCtor	Anna Maria Bigatti	22 Mar 2024 18:17	New Function	30
297	CoCoALib		Normal	Modules design: brainstorming		31 Jul 2014 14:55	New Function	30
289	CoCoALib		Normal	PrimeField -- new fn?		01 Aug 2014 08:59	New Function	0
246	CoCoALib		Normal	Approx QIR		04 Apr 2014 17:16	New Function	0
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
206	CoCoALib		Urgent	Matrix equation solving: LinKer		22 Mar 2024 09:42	New Function	30
174	CoCoALib		Normal	IsStdGraded: add for PPOrdering, PPMonoid, (Sparse)PolyRing..		01 Aug 2014 08:59	New Function	0
151	CoCoALib		Normal	Iterated CanonicalHom		13 May 2015 09:58	New Function	0
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
143	CoCoALib		Urgent	Buchberger-Moeller (parent task)	John Abbott	10 Jul 2014 14:16	New Function	38
134	CoCoALib		Normal	Convenience ring ctors and homs		11 Jul 2014 12:06	New Function	0
129	CoCoALib		Normal	Better GCD		09 Jul 2014 18:08	New Function	0
127	CoCoALib		Normal	Convert DUPFF code to C++	John Abbott	28 Sep 2022 15:04	New Function	50
125	CoCoALib		Normal	Matrix equation solving; linear system solving	John Abbott	18 Mar 2024 10:00	New Function	50
123	CoCoALib		Normal	IdealOfPoints with generic coeffs		09 Jul 2014 18:15	New Function	0
113	CoCoALib		Normal	Introduce PartialHom	John Abbott	09 Jul 2014 18:04	New Function	10