

## CoCoALib - Issues

#	Project	Parent task	Priority	Subject	Assignee	Updated	Category	% Done
1010	CoCoALib		Urgent	C++11: Mario's Hilbert scheme code		20 Feb 2017 13:19	Portability	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
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
817	CoCoALib		High	GenRepr in CoCoALib?		17 Nov 2016 14:12	New Function	0
685	CoCoALib		High	Use DivMask inside QBGenerator		02 Feb 2016 14:16	Tidying	0
440	CoCoALib		High	Port RealRoots to C++	John Abbott	19 Oct 2016 10:26	New Function	0
409	CoCoALib		High	Minimal syzygies (optimized implementation)	Anna Maria Bigatti	31 Jul 2014 12:36	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
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
1706	CoCoALib		Normal	slimgb: Brickenstein, singular		30 Oct 2022 20:30	Improving	0
1339	CoCoALib		Normal	All PPs of given wdeg		16 Oct 2019 14:04	New Function	0
1323	CoCoALib		Normal	Improve RealRoots: compute sqfr decomp		30 Sep 2019 16:14	Improving	0
1278	CoCoALib		Normal	Port old "clever" code for matrix determinant over ZZ to CoCoALib		03 May 2019 11:42	New Function	0
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
1227	CoCoALib		Normal	exgcd; solve Bezout equation		29 Aug 2019 14:55	New Function	0
1198	CoCoALib		Normal	Non-standard DegRevLex (NonStdDegRevLex, WDegRevLex)		23 Sep 2019 12:44	New Function	0
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
1117	CoCoALib		Normal	Better printing of negative coeffs		23 Sep 2019 11:52	Improving	10
1103	CoCoALib		Normal	Pseudo-zero-dim ideals	Anna Maria Bigatti	05 Nov 2021 16:09	Improving	30
1022	CoCoALib		Normal	New "LF" function which is based on StdDeg		06 Mar 2017 19:37	New Function	20
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

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974	CoCoALib		Normal	QIR/RealRootRefine: improve behaviour if input interval has "nasty" endpoints		01 Mar 2021 21:25	Improving	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
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
904	CoCoALib		Normal	SmallFpDouble: which impl of InvMod to use?		04 Jul 2016 13:45	Improving	0
896	CoCoALib		Normal	mysEqual, myCmp: direct comparisons between RingElem and MachineInt, BigInt and BigRat?		25 Jun 2018 15:31	Improving	10
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
869	CoCoALib		Normal	SmallFpImpl: different repr for computation and for storage?		22 Apr 2016 15:14	Improving	0
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
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
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 WDeg?		06 Nov 2017 14:00	New Function	10
797	CoCoALib		Normal	SmallFpImpl: make it faster	John Abbott	24 Apr 2024 23:04	Improving	20
780	CoCoALib		Normal	GroebnerFan/ExternalLib-GFan: improve package	Anna Maria Bigatti	21 Apr 2017 11:06	Improving	20
765	CoCoALib		Normal	ExternalLib-CDD: (needed by GFan)	Anna Maria Bigatti	11 Sep 2019 13:47	Portability	10
758	CoCoALib		Normal	configure: have option to say to look for external libs		03 Sep 2015 11:41	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
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
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

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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
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
617	CoCoALib		Normal	configure: check all libraries for compatibility		09 Sep 2014 12:21	Portability	0
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
575	CoCoALib		Normal	Investigate using cmake for configuration	John Abbott	13 Mar 2024 21:19	Portability	10
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
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
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
482	CoCoALib		Normal	Unique copies of rings -- smart ctor		20 Oct 2015 14:33	Safety	10
442	CoCoALib		Normal	Eigenvectors		09 Jul 2014 18:05	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
420	CoCoALib		Normal	Allow user to give a name to a ring		13 May 2015 09:55	Improving	0
400	CoCoALib		Normal	add myJMill member field to ideal		15 Sep 2014 12:04	New Function	0
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
315	CoCoALib		Normal	Add doc for ApproxPts2		10 Jul 2014 16:23	Documentation	0
289	CoCoALib		Normal	PrimeField -- new fn?		01 Aug 2014 08:59	New Function	0
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
258	CoCoALib		Normal	Multivariate lifting		01 Aug 2014 08:59		0

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257	CoCoALib		Normal	Transcribe C4 code for GCD in QQ[x]		01 Aug 2014 08:59		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
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
150	CoCoALib		Normal	RingOf rather than owner? (and than AmbientRing, ...)		30 Jul 2014 17:59	Renaming	10
146	CoCoALib		Normal	Buchberger-Moeller: input conversions		10 Jul 2014 14:17	New Function	0
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
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
92	CoCoALib		Normal	Error Codes		19 Apr 2017 08:31	Various	0
1419	CoCoALib		Low	DynamicBitset::lamAll1s		03 Feb 2021 18:18	Improving	0
839	CoCoALib		Low	SparsePolyIter: make more compatible with STL		07 Mar 2024 20:01	Improving	10
775	CoCoALib		Low	PPMonoid with 1 extra "exponent"?		15 Sep 2015 20:18	Improving	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
639	CoCoALib		Low	Shadow CoCoA namespace to help guarantee portability (without ambiguity)		28 Oct 2014 15:34	Safety	0
539	CoCoALib		Low	Functions to clean up a factorization		22 Jan 2024 20:28	New Function	0
459	CoCoALib		Low	LinearSimplify: port to CoCoALib		20 May 2014 09:47	New Function	0