CoCoALib

	2024-3				2024-4				2024-5				2024-6				2024-7				2024-8			
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
CoCoA																										
CoCoALib	**CoCoALib**																								
CoCoALib - CoCoALib-1.0																									
Sort out RingElem, RefRingElem, (...)																									
List of all functions in CoCoALib																									
printing polynomials																									
keywords in documentation																									
Cleanup header for ring classes (...)																									
Error Codes																									
automatic creation of all function (...)																									
Introduce PartialHom																									
Ideals of polynomials																									
LT over QQ: surprisingly slow																									
IdealOfPoints with generic coeffs																									
New datastructures directory																									
Convert DUPFF code to C++																									
Better GCD																									
Design problem in ideals																									
Convenience ring ctors and homs																									
Buchberger-Moeller (parent task)																									
Buchberger-Moeller: fast modular (...)																									
Buchberger-Moeller: impl via (...)																									
Buchberger-Moeller: input conversions																									
Makefile dependencies																									
RingOf rather than owner? (and (...)																									
Iterated CanonicalHom																									
GCD normalization (e.g. monic)																									
Convert old "task table" into redmine																									

IsStdGraded: add for PPOrdering, (...)

PPWithMask needs checking

Example for change of coordinates (...)

HilbertBasis from Normaliz: full-lattice (...)

Generator for random ring elements

Documentation for QBGenerator needs (...)

No test for QBGenerator

Approx QIR

Transcribe C4 code for GCD in QQ[x]

Multivariate lifting

Move the various <matrix>::mySetEntry (...)

Forward declarations

Eliminate class RefPPMonoidElem?

Store unique copy of FF(p) in GlobalManager

Global setting: to use IsProbPrime (...)

PrimeField -- new fn?

Modules design: brainstorming

Compilation on M$Windows: Visual (...)

FreeModule: unique copy?

Add doc for ApproxPts2

submodule constructor different (...)

C++ nasty surprises

Why is DMPI slower than DMPClean?

Module homs

Missing documentation and tests (...)

CoCoAServer: what future, what (...)

Resolution/morse: integrate Mario (...)

add resolution data type

implement algorithm(s) for resolutions

PPMonoidElemAlias: redesign PPMonoidElem (...)

add myHilbertSeries member field (...)

add myJBMill member field to ideal

NewFreeModule of dimension 0

Minimal syzygies (optimized implementation)

Allow user to give a name to a (...)	
Error names and error messages (...)	
Semantics of IsPrintedWithMinus	
Improve UPoly eval at BigRat for (...)	
MemPool: order free blocks?	
Polynomial multiplication (product (...)	
Port RealRoots to C++	
Eigenvectors	
Which sets of generators in an (...)	
LinearSimplify: port to CoCoALib	
Unique copies of rings -- smart (...)	
Clang: automatic bug finding	
Documentation: write doc for RingDenseUPolyClean	
Quick/correct flag for bool3 fns	
Fn to "flatten" muliple polynomial (...)	
Make squarefreefactor work in multiple (...)	
FloatStr uses too much memory	
Functions to clean up a factorization	
elim using RingTwinFloat triggers (...)	
add myResolution member field (...)	
Reconsider overloaded virtual mem (...)	
Subrings	
Temporary file for experimentation	
FloatApprox for TwinFloat values?	
Documentation for ReductionCog	
Allow use of RingElem instead of (...)	
Split SparsePolyRing.H into two (...)	
Investigate using cmake for configuration	
New function for printing with (...)	
Implement gin (generic initial (...)	
Problem with template instantiation (...)	
configure: check all libraries (...)	
Redesign CRTMill	
Wikipedia	

Gaussian integer and rationals (...)	
Complex twin-floats	
Shadow CoCoA namespace to help (...)	
What is test-Dynamic1.C	
Buchberger-Moeller: add option (...)	
Unique copies of free modules?	
Optimized algorithms for implicitization (...)	
Laurent polynomials	
Integrate Janet/Pommaret basis (...)	
factor: multivariate + finite characteristic	
Matrix determinant over multivariate (...)	
Credits to CoCoALib contributors	
Accumulator (like a geobucket)	
MemPool: make it easier to get (...)	
PPMonoid: add fn to check for overflow (...)	
Use DivMask inside QBGenerator	
myAddMul in poly rings	
PolyAlgebraHom (PolyRingHom) evaluate (...)	
Fault tolerant rational reconstruction: (...)	
Remove cruft from test files	
Add more operations between modules (...)	
Example database: Slow ideal equality (...)	
Noncommutative algebra "of solvable (...)	
Betti numbers, betti diagram	
Extend homomorphism to polynomial (...)	
Addition of sparse (multivariate) (...)	
View PP exponent vector (and order (...)	
Problem with GBasis in tower of (...)	
Investigate using Boost.build instead (...)	
configure: have option to say to (...)	
GlobalManager: initialization compatible (...)	
ExternalLib-CDD: (needed by GFan)	
CoCoALib cone	
PPMonoid with 1 extra "exponent"?	

CRTMill::myAddInfo accept modulus (...)	
Makefile: problem not seeing when (...)	
GroebnerFan/ExternalLib-GFan: improve (...)	
threadsafety: Scott Meyers's advice (...)	
finite fields: global register (...)	
Remove refcounts from RingElem?	
No doc for DistrMPolyInIFpPP	
Clean code for DistrMPolyClean	
SmallFpImpl: make it faster	
vector of "indets" in each PPMonoid?	
PPOrdering: use it to compute WDeg?	
Alg Extn by non-zero dim ideal	
FastCmp for degree -- useful?	
PPMonoid pseudo-ctor without explicit (...)	
GenRepr in CoCoALib?	
F5 with 3 args?	
Sparse matrices	
MachineInt: function for checking (...)	
Generalize grading matrix	
UIBC: need include file in RingWeyl.C	
Make Mario's new code threadsafe	
factor is very slow on some simple (...)	
Differential algebra	
SparsePolyIter: make more compatible (...)	
GINV: alex basis	
NewPolyRing: tidy up the many different (...)	
PPMonoidSparse: comparisons are (...)	
IsIrred: correct design?	
SmallFpImpl: different repr for (...)	
bool3: add some logical operations?	
factor: too slow on largish multivariate (...)	
Impl faster multiplication for (...)	
DistrMPolyInIPP::myPushFront and (...)	
IsIrred3: fast 3-way irred test (...)	

myIsEqual, myCmp: direct comparisons (...)
SmallFpDouble: which impl of InvMod (...)
External libraries: keep copy of (...)
Read input from SymbolicData database
New function: quorem for univariate (...)
Hilbert Driven GBasis
Design GBMill
Fn to read symbol range (SymbolRange)
Documentation: check layout of (...)
Printing TwinFloat as (rational) (...)
LinDepMill: Mill for linear dependencies
Slow NF example
Weights in ElimMat?
ex-PolyIterator
QIR/RealRootRefine: improve behaviour (...)
GFan: require version newer than (...)
GCD: add special case if args are (...)
Poly ring homomorphism to change (...)
C++11: Mario's Hilbert scheme code
GlobalManager: name of object in (...)
RowMat, ColMat with arg an empty (...)
New "LF" function which is based (...)
JanetBasis gives error indet index (...)
GroebnerFan: slow examples
Printing ring for ideals (or just (...)
GroebnerFan: ERROR: Matrix must (...)
Slug: MakeTermOrd (rk calls in (...)
invalid pointer in "free"
WEB SITE: HTML is not clean!
Ctors for exceptions/errors
Pseudo-zero-dim ideals
Better printing of negative coeffs
SqFreeFactor: should it work over (...)
Organize better the documentation (...)

mySquare and myPowerSmallExp	
New fn: transform ideal with ring (...)	
Printing for RingElem	
Clean up revised RatReconstructByContFrac (...)	
Upper bound for value of poly in (...)	
Matrix rank is slow (over QQ)	
Non-standard DegRevLex (NonStdDegRevLex, (...)	
New function: Threadsafe RandomLinearForm (...)	
exgcd; solve Bezout equation	
Make a poly ring QQ[x,y,z] also (...)	
Ideal equality	
Ideal Ops: sort-cuts for trivial (...)	
Port old "clever" code for matrix (...)	
Improve RealRoots: compute sqfr (...)	
Improve RootBound	
All PPs of given wdeg	
gcd: low degree but big coeffs (...)	
RandomUnimodularMat is slow with (...)	
French students' example with GFan	
Create two separate radical fns (...)	
DynamicBitset::IamAll1s	
Unified Gaussian reduction impl	
Benchmarks?	
C++17: notes about updating	
slimgb: Brickenstein, singular	
Clean out OLD CODE?	