CoCoALib

	2024-9				2024-10				2024-11				2024-12				2025-1				2025-2		
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8
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 DistrMPolyInlFpPP	
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 (...)	
DistrMPolyInlPP::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?	