

CoCoALib

	2024-4				2024-5				2024-6				2024-7				2024-8				2024-9							
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
CoCoA																												
CoCoALib																												
Documentation review by Caleo																												
test-Normaliz1.C																												
C++ integer shift operators																												
CoCoALib - CoCoALib-0.99550 spring 2017																												
libcocoa sometimes built without (...)																												
XeIMat, StdDegRevLexMat, ... should (...)																												
Release: CoCoALib-0.99550 (together (...))																												
Use symbolic links for external (...)																												
Review design of ConstMatrixView																												
In test files: when is assert.H (...)																												
test-OrderedRing: activate or eliminate?																												
Rename file PPMonoidEvZZ																												
RingDistrMPolyInIFpPPIImpl::mySummandPool (...)																												
New type for "constant" matrices?																												
DiagMat: mySetEntry checks the (...)																												
PPOrdering: matrix ordering, what (...)																												
GlobalManager: Imminent disaster (...)																												
Should ElimMat return a ConstMatrix																												
NewPositiveMat also for matrices (...)																												
NearestInt can needlessly throw (...)																												
MantissaAndExponent2 for twin-float																												
floor for TwinFloat can produce (...)																												
Twin-float: comparisons and equality (...)																												
Check impl of RingTwinFloatImpl::myIsRational																												
Assignment of rings (esp. derived (...))																												
Compilation Error: C++11 and old (...)																												

configure script: give summary (...)	Closed 100%
NumDigits: sometimes gives wrong (...)	Closed 100%
IsMaximal, IsPrimary for IDEAL (...)	Closed 100%
New function: FrobeniusMat	Closed 100%
BigRat: read from a string in "decimal" (...)	Closed 100%
GBasis verbose mode	Closed 100%
ReadExpr: cannot handle exponent (...)	Closed 100%
ReadExpr: misreads $2/3^4$	Closed 100%
New function: IsSqFree	Closed 100%
new file for old functions: obsolescent.C	Closed 100%
RandomUnimodularMat - random unimodular (...)	Closed 100%
determinant: fails for 0x0 matrix (...)	Closed 100%
New function: HasGBasis	Closed 100%
New function: ReducedGBasis	Closed 100%
CheckForInterrupt does not work (...)	Closed 100%
Which ostream for verbose/obsolescent (...)	Closed 100%
In scripts: use portable test for (...)	Closed 100%
square function	Closed 100%
Bruns SEGV: SparsePolyIter/DMPI (...)	Closed 100%
ReducedGBasis for RingWeyl (and (...)	Closed 100%
CPP flags in installed library	Closed 100%
LogStream: stream for log output	Closed 100%
Several tests fail when threadsafe-hack (...)	Closed 100%
ExternalLibs: function for getting (...)	Closed 100%
CoCoALib - CoCoALib-0.9950	
MachineInteger --> MachineInt	
Rename NumTheory and NumTheoryQQ	
rename RingQ, RingZ --> RingQQ, (...)	
Saturation	
DMPI vs DMPII is slower than expected	
Clean up DivMask and doc	
ordering matrices with rational (...)	
CoCoALib - CoCoALib-0.9951	
SwapRows, Cols	

Add links to examples in documentation

matrix - MatrixView

Index page for html documentation

QuotientRing problem

Shorter simpler names for some (...)

gcd: multivariate over non-prime (...)

Brand new symbol(s)

Separate ThreadsafeCounter from (...)

Cleanup doc for rings

Integer operations

CoCoALib - CoCoALib-0.9952

p-th root

CFAprox: division by zero

Normaliz: "double" cone for speed (...)

NBM: add SparsePolyRing as argument (...)

Better RingElems

Leading form

AreMonomials

Rings: default ctor & assignment

Review the utility of RefRingElem

CoCoALib - CoCoALib-0.9953

polynomial coefficient extraction (...)

implement creation of a PPMonoidElement (...)

Rename PPMonoidEvZZ?

Polynomial content

Names for random streams

MachineInt or long as fn arg type (...)

CoCoA4io

Porting "IdealOfPoints"

change long args in matrices into (...)

Revise interface to SmallFpImpl (...)

Doc & example for convert

IsHomog: should it throw an error (...)

Add homog (homogenized) for ideal

<p>Exponent range (in power products)</p> <p>PPMonoids: check for exponent overflow (...)</p> <p>Rational approximation</p> <p>Add fault tolerant rational reconstruction (...)</p> <p>PPMonoid pseudo-ctors without symbol (...)</p> <p>Equality of (sub)modules</p> <p>DenseUPolyClean uses size_t</p> <p>"configure" does not set BOOST (...)</p> <p>IdealOfPoints: gens are actually (...)</p> <p>New function BinRepr (was BinExp, (...)</p> <p>Store unique copy of QQ[t_1..t_n] (...)</p> <p>CoCoALib - CoCoALib-0.99531</p> <p>Squarefree factorization - Alessio (...)</p> <p>Squarefree factorization - overhead</p> <p>Squarefree factorization - generic (...)</p> <p>Squarefree factorization - for (...)</p> <p> Squarefree factorization - (...)</p> <p> Squarefree factorization (...)</p> <p> Squarefree factorization (...)</p> <p> Squarefree factorization - (...)</p> <p> Squarefree factorization - (...)</p> <p>Buchberger-Moeller: generic impl</p> <p>add CoeffVecWRT to cocoalib</p> <p>Colon of zero ideal fails (zero-divisors)</p> <p>problem loading library.H (parallel (...)</p> <p>CoCoALib - CoCoALib-0.99532</p> <p>CoCoA website: update web page (...)</p> <p>Squarefree factorization</p> <p> Squarefree factorization - (...)</p> <p>Conversion functions -- documentation</p> <p>OrdvArith documentation needs rewriting</p> <p>Function to get the Hilbert Polynomial (...)</p> <p>ReadExpr: input polynomials in (...)</p> <p>myDeriv for RingDenseUPolyClean (...)</p>	
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AsINT and AsRAT -- ConvertTo<BigInt> (...)
Update/Improve geobucket documentation
IsDivisible for RingElem with nice (...)
NewZZmod and NewRingFp: improve (...)
LongRange(a,b) returning vector (...)
function (CoCoALib) for minimal (...)
Check consistency of template class (...)
RingElem ctor from mpz_t (from (...)
design of factorization template (...)
OrdvArith: use of a single buffer (...)
New fn: NumPartitions
ex-Normaliz2-overflow.in too long (...)
ConvertTo with optional arg to (...)
Zero to the power zero, 0^0
ideal: minimize or minimized?
CoCoA website: CoCoALib-0.99532
CoCoALib - CoCoALib-0.99533 Easter14
Coefficient extraction
implement "binomial" (coefficient) (...)
BigInt - NumTheory
Rename MatrixViews
ZeroMat & FilledMat
Recognizing finite fields
Automatic conversion from bool3 (...)
How to return a Hilbert Series (...)
Notes for adding/removing files (...)
DynamicBitset example using LPP
Valgrind: keep CoCoALib at 0 memory (...)
Remove denominators: QQ[x] -> ZZ[x] (...)
Problems with DenseMatImpl::myResize
IsZeroDivisor
add DeleteCol, DeleteRow
IsDivisible -- exact semantics?
deg(F,X) instead of MaxExponent(F,X) (...)

Rename MatrixArith to MatrixOperations
PPMonoidOv is not threadsafe
factorization: public data fields, (...)
Use -fopenmp flag when compiling (...)
NewPolyRing_DMPI has no constructor (...)
make check in examples/ directory (...)
IsIntegralDomain, lamIntegralDomain3
Renaming: SqfreeFactor to SqFreeFactor
SyzOfGens (CoCoALib): fix shifts
Rename file TmpFactor to factor
MaxSquarableInteger gives wrong (...)
Fn to test if an integer is a power (...)
Release: CoCoALib-0.99533
Convert BigInt/BigRat to string
IO: move GlobalInput etc to CoCoA (...)
Compilation problem in TmpMorsePaths.C
Progress reporter
CoCoALib/io.H
CoCoALib - CoCoALib-0.99534 Seoul14
polynomial coefficient extraction (...)
cleanup doc for matrix, MatrixViews, (...)
MatByRows, MatByCols
Repeated rows/cols in submat
Usefulness of ring casting fns (...)
FractionField -- only of TrueGCDDomain?
CoCoALib normaliz interface
Automatic mapping of RingElems
Documentation for tmp.H (utils (...))
Compilation problem with "degree.H" (...)
Module ordering and grading (and (...))
ordering and grading (weights) (...)
Remove AsPolyRing etc?
Documentation for adding functions (...)
Release: CoCoALib-0.99534

<p> CoCoALib-Normaliz interface: cannot (...) Valid symbol heads CmpAbs for RingElem Hilbert crashes with > 100 indeterminates Example for PPVector: ex-PPVector BaseRing for all rings (Hilbert-) quasi-polynomials CoCoALib - CoCoALib-0.99535 Sep14 Subtle ref count bug for poly rings (...) problem with "matrix" argument (...) Release: CoCoALib-0.99535 CoCoALib - CoCoALib-0.99536 June 2015 Compute inverse in quotient ring (...) Release: CoCoALib-0.99536 Modulus (for CRTMill) ambiguous Inverse of a matrix over ZZ NumTheory: sieve of Eratosthenes Ambiguous: rank for matrix (in (...)) Clean test-FreeModule1 Move code in test file into namespace (...) QBGenerator crashes RatReconstructByLattice fails in (...) power for PPs is too slow Fault tolerant rational reconstruction: (...) DetDirect calls myAddMul with 0 (...) Interrupt mechanism CheckForInterrupt: string arg to (...) Move code in examples into namespace (...) CoCoALib - CoCoALib-0.99538 summer 2015 Release: CoCoALib-0.99538 (together (...)) RandomSubsetIndices, RandomTupleIndices? New function for making list of (...) CoCoALib - CoCoALib-0.99540 Feb 2016 Janet Bases: check and include (...) </p>	
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<p> BigInt ctor from a machine integer OrdMat: should it be a reference (...) Make SmallFpImpl safer to use Convert a PPMonoidElem to RingElem (...) ExternalLib-GFan: first prototype DMPZmerge: make non-recursive FloatStr prints a NUL character abs for MachineInt Add new fn InvModNoCheck ZeroMat and IdentityMat should (...) AssignZero for matrix ILogBase: change name? Add new fn SimplestBinaryRatBetween Rename isqrt to FloorSqrt (following (...) GradingMat: does anyone need it? NewMatMinimize, NewMatCompleteOrd (...) IsTermOrdering Fn names: LexMat or MatLex; StdDegRevLexMat (...) Use MachineInt instead of long (...) primary.cocoa5 Fix test failures (after revising (...) SmallFpImpl: export fns for a fixed (...) CoCoALib - CoCoALib-0.99542 spring 2016 Implement MinPoly in CoCoALib CoCoALib - CoCoALib-0.99560 matrix constructors GlobalManager: registration of (...) Use BOOST lib default location (...) BOOST -- how it could help in CoCoALib implement IsPrime3, IsMaximal3 Release: CoCoALib-0.99560 (together (...) Tidy CoCoA root directory Temporary directories used during (...) Add graeffe function? </p>	
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Time limit: let user specify time (...)
Module index component in internal (...)
Makefile_dependencies in src/tests/
Stats in GBMill (GReductor)
frobby (v0.9.0) does not compile (...)
Configuration: where to keep source (...)
NumTheory: behaviour of InvMod (...)
compilation on fedora 23: some (...)
CoCoALib function for radical (or (...)
PPOrderingCtor: name of mem fn (...)
ReadExpr is too slow on large polys
My first compilations with clang
General verbose mode?
configure: possibly ignore GMP (...)
SmallestNonDivisor -- new fn
configuration: include -std=c++03 (...)
IsInRadical: case of homog ideal
Split poly into homog parts
Improvement: how to sort QuotientBasis?
LF curiously slow (breaking a poly (...)
ReadExpr(P, string) and RingElem(P, (...)
New function: IdealOfGBasis, IdealOfMinGens (...)
CoCoALib version in Documentation (...)
Catching an (expected) error
Bug in MinPolyModular (ugly prime)
Design: should we allow an ideal (...)
makefile: ungraceful when interrupted
ideal() * RingElem gives error
factor in ZZ[x] gives errors
MinPolyQuot: check input (was: (...)
New design for interrupt mechanism
MinPolyQuot: runs out of primes
ExternalLib-MathSAT: first prototype
Rename ERR::SERIOUS to ERR::ShouldNeverGetHere

Closed 100%

<p> Bug in MinPolyModular (insufficient (...) Implement RootBound New fn: IsCoprime (whenever gcd (...) Compiler with --debug configuration (...) Polynomial multiplication wrong (...) File names, coding conventions: (...) CoCoALib - CoCoALib-0.99600 Porting "IdealOfProjectivePoints" New file: BigRatOps port to CoCoALib: Homomorphism (...) ExternalLib: simplify configuration IsPositiveGrading -- really need (...) Doc for BigInt, BigIntOps, BigRat (...) New function: MinPoly of RingElem (...) New function: PrimaryDecomposition0 (...) Makefile: install target for CoCoALib coefficients for MinPoly e Frobenius MinPolyQuot: missing doc Determinant of matrix over QQ (whose (...) PrevPrime and NextPrime anomalies Move examples directory into doc (...) New function: SubmoduleOfMinGens Sturm sequence File names, coding conventions: (...) Release: CoCoALib-0.99600 (together (...) SmallFpImpl: new ctor arg to say (...) Create a new "prime source" iterator New function: MinPolyQuotHeuristic (...) Add global enum "verify/DontVerify" Check semantics of NoSmallFactorSeq Split SparsePolyRing.C in smaller (...) MinPoly over QQ: verification may (...) New class VerificationLevel New function: RandomLinearForm (...) </p>	<p style="text-align: center;">Closed 100%</p>
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File names: use "SparsePolyOps" (...)
New function: myPrimaryDecomposition_0dim
BigRat(0) unexpectedly compiles! (...)
CpuTime is costly!
"mod" for BigInt
factor: multivariate, wrong RemainingFactor (...)
Release: CoCoALib-0.99580 (together (...)
GCD bug with high degree arg
factor over algebraic extensions
SyzOfGens: bug with zero generators
CoCoALib - CoCoALib-0.99650 November (...)
Bareiss algorithm
Matrix determinant over ZZ
Replace auto_ptr in preparation (...)
txt2tags: double quotes wrong in (...)
GCD very slow
Rename iroot?
Primary Decompositon (zero-dim) (...)
gcd crashes (Floating point exception)
New function: HasPositiveGrading
HilbertSeries should check grading
NewPolyRing default indet names
IsPrime(0)
MinPolyQuot: guaranteed and ideal (...)
principal ideal has a Gbasis
SEGV: CoCoALib with Normaliz in (...)
New function: radical for monomial (...)
RingID: different values in test-output (...)
C++14: use nullptr
ThreadsafeCounter is now obsolete?
Release 0.99650
Printing for (prime) finite fields
Never use "using namespace .." (...)
New fn: FixedDivisor (formerly (...)

CoprimeFactorBasis: mishandles (...)
New function primorial
Factorization mod p
SmoothFactor: allow limit = 1?
RealRoots: gives odd number of (...)
txt2tags: LaTeX/PDF section numbers (...)
New syntax for creating homomorphisms (...)
New syntax for NewQuotientRing
New function: vector of RingElem (...)
Rename SparsePolyOps-MonomialIdeal (...)
Problem with linking the library
New function: ctor of PPVector (...)
CoCoALib - CoCoALib-0.99700
Makefile problem in ROOT and/or (...)
Squarefree GCD-free basis
Return type & name for "indets" (...)
Squarefree(?) GCD-free basis
Rows and Columns of a matrix
Constructor for vectors? CoCoAVector
Indets actually in a poly (or vector (...)
QuotientRing: is it correct to (...)
configure: search for libgmp too (...)
CoCoALib configuration: BOOST dependency
ElimMat, ElimHomogMat: complain (...)
New function or explain: first (...)
Output to bad stream (operator<< (...)
configure: auxiliary scripts should (...)
Catching interrupts in example (...)
IsInRadical: sometimes a bit slow
Split NumTheory.C into several (...)
should BeginIter(RingElem) be in (...)
ReadExpr is too slow on long lists (...)
Fix file permissions after using (...)
Remove unnecessary files before (...)

<p> Gaussian row reduction test-GFan1 fails Problem rebuilding dependencies (...) Release CoCoALib-0.99700 configure script help GBasis verbose mode: some output (...) Should configure remove the file (...) CpuTimeLimit: limit "intervals" (...) Fails to recognize zero-dim ideal Make IsZeroDim more robust myZeroPtr and myOnePtr gfan: installation problem: configure (...) IsPrimary sometimes wrong configure script: MODE option obsolete? IdealOfProjectivePoints and MinGens Main Makefile: does not rebuild (...) New function: LawrenceMat GBasisByHomog for DegLex CoCoALib - CoCoALib-0.99710 New fn ConstantTerm? myTestIsPrimary & Co. : fix design Bivariate factor bug: sometimes (...) Release CoCoALib-0.99710 CoCoALib - CoCoALib-0.99800 Adjoint of a non-invertible matrix object files collected in one directory Porting "LinKer" Replace bool3 by tribool Keep CoCoALib web page up to date! (...) C++14: MachineInt Instructions for compiling libnormaliz valuation slow for large inputs MemPool: review min and max loaf (...) ar gives warnings on fedora 23 </p>	
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Function MakeTermOrd should be (...)
Janet basis code: TmpJB files give (...)
SimplestBigRatBetween: why is it (...)
SmoothFactor: slow when a factor (...)
Split MatrixOps
Reconsider design for accessing (...)
FreeModule: get canonical basis
Tidy up code for matrix determinant
adj: for matrices 7x7 and bigger
Radical 0-dim: varied timings
GBasisTimeout: not working as expected
RingElems: syntax with [and] (...)
SHA checksum for released code
New fn: interreduction
Radical 0-dim NYI? missing case (...)
Flatten for a matrix
Make SmoothFactor interruptible
Redesign interrupt mechanism?
Name of TensorMat; change to KroneckerProd?
Change CoCoA_ERROR into CoCoA_THROW_ERROR
SmoothFactor: use FactorMultiplicity
Change syntax apply(phi,M) into (...)
isystem not working as expected
Release CoCoALib 0.99800
IsPowerOf2 for rationals
ker bug (quotientinghom for R/ideal())
New function: MinusOneToPower
Normaliz 3.8.9
factorization: allow zero as exponent?
IsDivisible in a field?
Indets in coeffring are ringelems (...)
RandomLinearForm
Input fns: action when when istream (...)
MacOS compilation with clang

INPUT questions

RingElem from string (ReadExpr)

Require decimal mode for ostream?

Software licence

CpuTimeLimit: more frequent clock (...)

BigRat: ctor from machine int

IsInRadical: gives "weird" error

FloatStr sometimes produces NUL (...)

New fn prim for polys

CRASH/ABORT: GMP overflow

IdealOfPoints: allow matrix of (...)

CRASH: LinKerZZ

Compilation of Normaliz

Normaliz 3.8.10

RingHom: implement phi(X) as apply(phi, (...)

Compilation ambiguity

binomial: domain of defn?

CoCoALib - CoCoALib-0.99850

submat takes only vector<long>

C++11 compatibility questions

Mod fn for computing remainder

MatrixView/function for viewing (...)

W.Brun's wish list

Improve doc about ordering/grading (...)

Iter for subsets/tuples

Make RingBase::myCharacteristic (...)

Which ubuntu / debian packages (...)

Automatic mapping of RingElem: (...)

Makefile; limit dependencies on (...)

PPMonoidSparse: impl of sparse (...)