CoCoALib

	2023-10				2023-11					2023-12				2024-1				2024-2					2024-3			
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
CoCoA																										
CoCoALib	CoCoALib																									
Documentation review by Caleo																										
test-Normaliz1.C																										
C++ integer shift operators																										
CoCoALib - CoCoALib-0.99550 spring 2017	CoCoALib-0.99550 spring 2017 100%																									
libcocoa sometimes built without (...)	Closed 100%																									
XelMat, StdDegRevLexMat, ... should (...)	Closed 100%																									
Release: CoCoALib-0.99550 (together (...)	Closed 100%																									
Use symbolic links for external (...)	Closed 100%																									
Review design of ConstMatrixView	Closed 100%																									
In test files: when is assert.H (...)	Closed 100%																									
test-OrderedRing: activate or eliminate?	Closed 100%																									
Rename file PPMonoidEvZZ	Closed 100%																									
RingDistrMPolyInIFpPPImpl::mySummandPool (...)	Closed 100%																									
New type for "constant" matrices?	Rejected 100%																									
DiagMat: mySetEntry checks the (...)	Closed 100%																									
PPOrdering: matrix ordering, what (...)	Closed 100%																									
GlobalManager: Imminent disaster (...)	Closed 100%																									
Should ElimMat return a ConstMatrix	Closed 100%																									
NewPositiveMat also for matrices (...)	Closed 100%																									
NearestInt can needlessly throw (...)	Closed 100%																									
MantissaAndExponent2 for twin-float	Closed 100%																									
floor for TwinFloat can produce (...)	Closed 100%																									
Twin-float: comparisons and equality (...)	Closed 100%																									
Check impl of RingTwinFloatImpl::myIsRational	Closed 100%																									
Assignment of rings (esp. derived (...)	Closed 100%																									
Compilation Error: C++11 and old (...)	Closed 100%																									

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	
CFApprox: 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	

- Exponent range (in power products)
- PPMonoids: check for exponent overflow (...)
- Rational approximation
- Add fault tolerant rational reconstruction (...)
- PPMonoid pseudo-ctors without symbol (...)
- Equality of (sub)modules
- DenseUPolyClean uses size_t
- "configure" does not set BOOST (...)
- IdealOfPoints: gens are actually (...)
- New function BinRepr (was BinExp, (...)
- Store unique copy of QQ[t_1..t_n] (...)

CoCoALib - CoCoALib-0.99531

- Squarefree factorization - Alessio (...)
- Squarefree factorization - overhead
- Squarefree factorization - generic (...)
- Squarefree factorization - for (...)
  - Squarefree factorization - (...)
    - Squarefree factorization (...)
    - Squarefree factorization (...)
  - Squarefree factorization - (...)
  - Squarefree factorization - (...)
- Buchberger-Moeller: generic impl
- add CoeffVecWRT to cocoalib
- Colon of zero ideal fails (zero-divisors)
- problem loading library.H (parallel (...)

CoCoALib - CoCoALib-0.99532

- CoCoA website: update web page (...)
- Squarefree factorization
  - Squarefree factorization - (...)
- Conversion functions -- documentation
- OrdvArith documentation needs rewriting
- Function to get the Hilbert Polynomial (...)
- ReadExpr: input polynomials in (...)
- myDeriv for RingDenseUPolyClean (...)

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: minimalize or minimalized?	
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, IamIntegralDomain3
- 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

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 (...)	

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?	

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	
ExternaLib-MathSAT: first prototype	Closed 100%
Rename ERR::SERIOUS to ERR::ShouldNeverGetHere	

Bug in MinPolyModular (insufficient (...)	
Implement RootBound	
New fn: IsCoprime (whenever gcd (...)	
Compilaton 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 (...)	Closed 100%
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 (...)	

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 (...)	

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	

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.Bruns'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 (...)	