CoCoA

	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																										
Web site: mailto link for bugs, suggestions (...)																										
Look of first Redmine page linked from CoCoA (...)																										
ApCoCoA																										
New ApCoCoA UI																										
Interactive window and history mechanism																										
Input tabbed windows associated to files																										
ApCoCoA projects																										
ApCoCoA: separate window for manual																										
How to connect GUI to cocoa5 executable?																										
CoCoA-5	CoCoA-5																									
intersection																										
Hermite normal form																										
RingID: remove this function?																										
Profiling with clang																										
CanonicalHom																										
Manual of functions vs ManExamples																										
CoCoA-5 releases on redmine																										
CoCoA-5 - CoCoA-5.4.2																										
Automatic mapping between (some) (...)																										
theValue makes copy																										
Elim ordering and matrix ordering (...)																										
C++11 compatibility questions																										
OpenOFile																										
Functions throwing error even though (...)																										
Janet Bases: port function into (...)																										
CoCoA-5 Projects for students (e.g. (...)																										
Installation instructions (on website)																										

port SmithNormalForm (CoCoA-4)package (...)

EmacsUI Source/SourceRegion produce (...)

Emacs UI; remove cruft

Eliminate package BinRepr

Review utility of package IO

CoCoAManual: improve part on input/output

Gaussian Elimination

Prototype package for Linear Commutative (...)

Variable It: assign before or after (...)

Speed of some Normaliz calls (NmzComputation)

NotBuiltin.cpkg5: indent for MODULE

Referring to indets with multiple (...)

Emacs UI: send-file (C-c C-f) should (...)

Implicit: make easier to use with (...)

Add TUTORIALs to online manual

Clean up CoCoALibSupplement

Function "ideal" evaluates the (...)

"universal denominator" (related (...)

Microsoft (Windows 10, maybe other (...)

Separators for elements of a list

LinKerBasis is user-unfriendly

CoCoAManual: AffHilbertFn accepts (...)

Eigenvectors: inconsistent return (...)

IsInRadical: for monomial ideals

Use Flatpak and/or Snap on Linux?

RealRoots: rational roots (but (...)

MinPoly for matrix: fix in cocoalib (...)

SLUG: filling an array

append is slow

ker: for PolyAlgHom from QQ[x,y,z] (...)

GDPR: website, mailing list

MSatLinSolve: req minor improvements

Online manual entry for RingElem (...)

ShapeLemma: no manual entry

Split BuiltinFunctions-CoCoALib.C (...)

Interpreter: fns which accept INT (...)

Vim Plugin for CoCoA

Automatic conversion from RINGELEM (...)

CoCoA-5 manual: incorrect empty (...)

CoCoA manual: entry for operators, (...)

Package EdgeIdeal not documented

New function: find ?

GFan also for Microsoft?

GUI with Qt5

thmproving package

Manual entry for NewPolyRing

MakeTerm: implement in C++

Stack overflow reading long list (...)

HTML manual: search using keywords?

Emacs UI: cocoa5-shell-check-process (...)

Disable readline if input is redirected

Surprising parser error: INT+DOT+IDENTIFIER

Automatic way to produce statically (...)

Use symbolic links for release (...)

Filenames in release CoCoAManual/html (...)

IntersectList or IntersectionList

Get indexed indets from a polyring

Website: link to JSAG?

HilbertSeries: make into proper (...)

Lin alg with polys

Documentation for making ring with (...)

Emacs UI: indentation in a package

Use "special" names for variables (...)

SystemCommand in Microsoft version

More flexible ring creation syntax (...)

Initial ring

Interpreter fn Value::from can (...)

RingElem and IndetSymbols not compatible

Install CoCoA-5 on MacOS-10.15+	
New functions: argmin, argmax	
foreach with ref to list entry?	
CoCoA coding conventions for parser/interprer?	
CoeffOfTerm: in CoCoALibSupplement	
Man page for UniversalGBasis	
Add sagbi package	
Emacs: avoid making buffer visible (...)	
subst: not checking args properly	
DivAlg slower than NR	
elim for modules	
Geometrical theorem proving package	
What does rad do?	
RMap and image: obsolescent?	
ApproxSolveTF	
Slow sqfr: rad(f)	
New fn ElapsedTimeFrom?	
Unhelpful behaviour in "compatibility (...)	
SqFreeFactor crashes over non-perfect (...)	
Doc for the various BuiltIn files	
EmacsUI: annoying colours	
NewMat: should be obsolescent?	
Use filesystem::path instead of (...)	
Unexpected or unhelpful error using (...)	
Missing/Incomplete manual entries	
MinSubsetOfGens sometimes very (...)	
RealRoots: crashes after interrupting	
Allow user to choose whether to (...)	
ApproxSolve and RationalSolve take (...)	
Potentially confusing prompt: waiting (...)	
Jordan Normal Form?	
GCDList not documented	
Refactor C++ impl in OnlineHelp	
BuiltinFunctions-GFan includes (...)	

Should Starting be case-insensitive?

Manual entry for random (see also)

Release CoCoA 5.4.2

Preliminary packages

Linux: just 1 executable, should (...)

Documentation/Manual for HilbertFn

ManExamples target: need t reset (...)

NewPolyRing with indices -- better (...)

Quitting can be slow

Continued fraction: arg type RAT (...)

GenReprCompute: SERIOUS ERROR

Strange bug: demo-Osaka2015

Makefile problem: needlessly relinks (...)

CoCoA-5 - CoCoA-5.4.4

Approximate BuchbergerMoeller: (...)

CoCoAManual: General part of the (...)

Emacs UI: keywords in multiline (...)

Manual: remove old stuff about (...)

Revive old CoCoA4 package called (...)

Emacs UI: slow with long lines

Poor memory management?

SLUG: RationalSolve slow and stupid

Add CoCoA5 function NmzHilbertBasisKer

BuiltinOneLiners -- less precise (...)

CantStop playing CantStop

Refine Poset impl & doc

Verbosity level in CoCoA5

EvalPolyAtMat

Make it easy to run the tests in (...)

Better error mesg for 1.2.3.4?

CoCoA web site "analytics"

Difference between seealso and (...)

Add CoCoA-5 syntax: syz(<F,> list (...)

New function ModuleElems? (like (...)

CoCoA-5 - CoCoA-5.?.?

    (short) manual for emacs interface

    GUI: open file "with C5"

    Error/warning if fn-proc is neither (...)

    sort is too slow

    BringIn should map only the indets (...)

    rethrow in Try .. UponError .. (...)

    I:f (IDEAL and RINGELEM) -- (...)

    Qt GUI: Make better distinction (...)

    GUI: Add an edit menu to the top (...)

    C-c C-p in emacs goes to wrong (...)

    Negate LIST, MAT,...

    Template for unaryMinus?

    InputForm for output readable as (...)

    Appunti per (eventuale) tesi triennale (...)

    More curiously slow code -- squaring (...)

    Add LucasTest to cocoa5?

    TeXmacs interface

    --fullCoCoALibError prints too (...)

    Which functions are defined in (...)

    Documentation for Parser/Interpreter

    GUI: message "running.." (close (...)

    system variables

    Colon operator, 2nd arg

    allow single function call in "use" (...)

    Hilbert: Redesign hp.cpkg5 and (...)

    port optimized resolutions to CoCoA-5

    intersection (all lower case)

    Allow user to give a name to a (...)

    Bug or feature for protected name? (...)

    Emacs UI: Name of emacs init file

    Emacs UI: very slow when input (...)

    Assignment to protected variable

    Port function NewSymbol/NewSymbols (...)

Automatic conversion from INT (or (...)
interpolate
Emacs UI: indentation is wrong (...)
Eliminate keyword Alias?
gcd too slow for large degree univariate (...)
Unique copies of rings in CoCoA-5
Warning about variable hiding another (...)
ScalarProduct accepts MatrixRow?
Cleaning: Cruft in CoCoA-5 packages
New C5 fn for adjusting the warning (...)
Toric: resurrect function TestSet (...)
New operators: += -= *= /=
Resurrect MakeCheck()
GUI: better name for the graphical (...)
efficient subalgebras
Interpreter.C: remove calls to (...)
GUI: qutting provokes Imminent (...)
Add functions based on MayerVietorisTree
Output Betti numbers
Windows-GUI: compilation with MinGW
New operations? ScalarProduct(MODULELEM,LIST), (...)
Unique copies of free modules?
Emacs UI: use "warning colour" (...)
MakeSet can be very slow
eval: in which ring should the (...)
use command, ring syntax, RingOf
Ring ID: separate index values (...)
Emacs UI: endfunc does not indent (...)
Emacs UI: C-c C-\ copies line cursor (...)
NUL char in input terminates CoCoA-5
Emacs UI: swapped splitting
Credits to CoCoA-5 contributors
Add more operations for modules
External Libs: missing dependencies (...)

External libs: specifying I/O streams (...)

Primary Decomposition in CoCoA-5

Elementary transcendental functions (...)

IsDefined does not follow reference (...)

New function: LeastDegPolynomial (...)

CoCoA type "cone"

Emacs UI: send-region and send-line (...)

floor, ceil, and NearestInt for (...)

append has bad complexity

Interpreter is too slow reading (...)

subst: allowed also for indets (...)

LOGAR: make CoCoA-5 easier to use

Escaped newline to allow a long (...)

When is a semicolon needed to end (...)

use command: unhelpful error if (...)

CallOnGroebnerFanIdeals: better (...)

Empty matrix: warning, error, or (...)

ciao, exit, quit can be used not (...)

Improve coverage of CoCoA-5 tests

Managing credits

New function: IdealAndSeparatorsOfPoints

New function: MakeMultiset?

CoeffSize: function to measure (...)

GroebnerFanIdeals: order matrices (...)

init file obligatory?

New function: RingQQi()? extension (...)

New syntax for creating poly rings?

External dependencies for building

Example of slow LEX GBasis computation

ScalarProduct: exact defn and manual (...)

Improve error message when args (...)

CoCoAManual: improved search, or (...)

PolyRing constructor: NewOrdvArith (...)

EmacsUI: interrupt copies line (...)

GUI: bugs and slugs	
CoCoA Online: install (using InteractiveShell)	
Port RowMat, ColMat, MatByRows,... (...)	
Generic Timeout for CoCoA-5?	
Latex: matrix	
New function: gin for algebraic (...)	
CoCoA should read unicode	
Allow Interruption of printing?	
incr and decr are slow	
New Fn: make a homogeneous list (...)	
LinearSimplify: somtimes not optimal	
Matrixrow-functions	
Create a directory	
Emacs UI: open manual pages in (...)	
Clean up package points.cpkg	
User forum?	
Windows: Qt-Gui does not link correctly	
Daft slug	
CoCoALib	**CoCoALib**
CoCoALib - CoCoALib-0.99880	
Matrix equation solving; linear (...)	
Improve threadsafety	
Matrix equation solving: LinKer	
Printing polynomials - spaces between (...)	
Play with GIT	
Error: ERR::NotNonZero instead (...)	
Elim(vector<long>) as PPOrderingCtor	
Syzygy for modules: non-homogeneous (...)	
Error codes: use same code for (...)	
LongRange: in which file should (...)	
Impl small non-prime finite fields (...)	
DistrMPolyClean does not use MemPool (...)	
MatrixOrderingMod32749Impl: test (...)	
Update normaliz interface?	

Better errors: give supplementary (...)

SLUG: elimination

Test whether a symbol is in a ring

DivMask: extend interface?

Implement "elim" in CoCoALib

Cleanup MinPoly code

implicit, ImplicitHypersurface: (...)

Redesign ideals

LinSolve for matrices over FFp

strict enum types: C++11 extension

New function: cardinality of finite (...)

FlagManager for bool/bool3 flags

MachineInt or long for args which (...)

Separate configure scripts for (...)

MachineInt: change semantics?

IsRadical for ideal?

New function: multiplicity and (...)

Improve saturate

CoCoALib - CoCoALib-0.99900

Redmine Administration

Design new errors using inheritance

Which names to use? Intersection/saturation (...)

New function: IdealWithIncrementalGBasis(I, (...)

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 (...)	