## CoCoALib - Feature #203

# Function to get the Hilbert Polynomial ring from GlobalManager

04 Jul 2012 11:20 - Anna Maria Bigatti

Status: Closed Start date: 04 Jul 2012

Priority: High Due date:

Assignee: Anna Maria Bigatti % Done: 100%

Category: New Function Estimated time: 1.50 hour

Target version: CoCoALib-0.99532 Spent time: 0.00 hour

#### **Description**

The function **MakeGlobalHPPowerList(const DenseUPolyRing& P)** in GlobalManager.C creates a list of polynomials. Its **ring** (a DenseUPolyRing) should be easily accessible by users.

Which name should it have?

RingQQt?

AMB 2013-07-23: John Abbott wrote RingQQt(n) (unique copy), for n indeterminates.

It is not guaranteed to be the same ring as above, but it is a global ring which can be used for many purposes.

#### Related issues:

Related to CoCoALib - Feature #281: Store unique copy of FF(p) in GlobalManager	New	03 Dec 2012
Related to CoCoA-5 - Feature #93: Hilbert series: global output rings for non	Closed	23 Feb 2012
Related to CoCoALib - Design #254: How to return a Hilbert Series in CoCoALib	Closed	08 Oct 2012
Related to CoCoALib - Feature #390: Store unique copy of QQ[t_1t_n] (RingQQ	Closed	23 Jul 2013

#### History

#### #1 - 05 Jul 2012 11:14 - Anna Maria Bigatti

Currently it is available calling the function

DenseUPolyRing StartPoincareQQt(int IndetsNo);

included in (include/)\*../src/AlgebraicCore/TmpHilbertDir/TmpPoincareCPP.H\*

IndetsNo is used for precomputing some powers of (1-x) -- used by the Hilbert algorithm.

#### #2 - 18 Jun 2013 23:05 - Anna Maria Bigatti

- Category set to New Function
- Status changed from New to In Progress
- Assignee set to Anna Maria Bigatti
- Target version set to CoCoALib-0.99534 Seoul14
- % Done changed from 0 to 50

Now that we have RingQQt(n) clean up older tentatives....

#### #3 - 23 Jul 2013 18:07 - Anna Maria Bigatti

- Status changed from In Progress to Feedback
- % Done changed from 50 to 90

10 Apr 2024 1/2

## #4 - 29 Oct 2013 14:56 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99534 Seoul14 to CoCoALib-0.99532

# #5 - 21 Mar 2014 14:35 - Anna Maria Bigatti

- Status changed from Feedback to Closed
- Priority changed from Normal to High
- % Done changed from 90 to 100

working fine for 5 months. closing

# #6 - 03 Apr 2014 11:52 - Anna Maria Bigatti

- Estimated time set to 1.50 h

10 Apr 2024 2/2