CoCoALib - Bug #1729

Bug HilbertPoly of zero-dimensional ideals

23 Mar 2023 05:20 - Anna Maria Bigatti

Status:	Closed	Start date:	23 Mar 2023
Priority:	Urgent	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	Maths Bugs	Estimated time:	0.00 hour
Target version:	CoCoALib-0.99850	Spent time:	0.60 hour

Description

HilbertPoly works fine in general, but not for zero-dimensional ideals (result should be the polynomial 0)

```
/**/ use R ::= QQ[w,x,y,z];
/**/ I := ideal(z^2, w, x^2, y^2);
/**/ HilbertFn(R/I);
H(0) = 1
H(1) = 3
H(2) = 3
H(3) = 1
H(t) = 0    for t >= 4
/**/  HilbertPoly(R/I);
t^3 +3*t^2 +3*t +1
```

Related issues:

Related to CoCoA-5 - Bug #1734: Fix call to HilbertPoly in test/TutHokkaido5		**Closed**	**12 Apr 2023**

History

#1 - 23 Mar 2023 05:21 - Anna Maria Bigatti

- Category set to bug

- Assignee set to Anna Maria Bigatti

- Priority changed from Normal to Urgent

- Target version set to CoCoA-5.4.2

- % Done changed from 0 to 10

#2 - 23 Mar 2023 05:22 - Anna Maria Bigatti

- Project changed from CoCoA-5 to CoCoALib

- Category deleted (bug)

- Target version deleted (CoCoA-5.4.2)

#3 - 23 Mar 2023 05:23 - Anna Maria Bigatti

code is in SparsePolyOps-hilbert.C

#4 - 23 Mar 2023 05:40 - Anna Maria Bigatti

- Subject changed from Bug HilbertPoly of zer-dimensional ideals to Bug HilbertPoly of zero-dimensional ideals

- Category set to Maths Bugs

- Status changed from New to Feedback

- Target version set to CoCoALib-0.99850

- % Done changed from 10 to 90

silly mistake, as expected. Fixed
Added check for standard grading (otherwise there is no single HilbertPoly)

#5 - 23 Mar 2023 05:44 - Anna Maria Bigatti

checked in.
@Anna: Test also similar functions.

#6 - 12 Apr 2023 14:43 - Anna Maria Bigatti

- Related to Bug #1734: Fix call to HilbertPoly in test/TutHokkaido5 added

#7 - 12 Apr 2023 14:45 - Anna Maria Bigatti

- Status changed from Feedback to Closed

- % Done changed from 90 to 100