

## CoCoALib - Feature #1016

### ReducedGBasis for RingWeyl (and other non-commutative rings)

02 Mar 2017 11:16 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	02 Mar 2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Anna Maria Bigatti	<b>% Done:</b>	100%
<b>Category:</b>	Improving	<b>Estimated time:</b>	1.01 hour
<b>Target version:</b>	CoCoALib-0.99550 spring 2017	<b>Spent time:</b>	1.20 hour
<b>Description</b>			
Implement ReducedGBasis for RingWeyl and other potential future non-commutative rings.			
<b>Related issues:</b>			
Related to CoCoALib - Feature #961: New function: ReducedGBasis		<b>Closed</b>	<b>03 Nov 2016</b>

#### History

##### #1 - 29 Mar 2017 18:22 - Anna Maria Bigatti

- Related to Feature #961: New function: ReducedGBasis added

##### #2 - 27 Apr 2017 15:01 - Anna Maria Bigatti

- Description updated
- Status changed from New to Feedback
- Assignee set to Anna Maria Bigatti
- Target version changed from CoCoALib-1.0 to CoCoALib-0.99550 spring 2017
- % Done changed from 0 to 90
- Estimated time set to 1.01 h

I think this is done automatically.

I did not write an example, but I think the problem was about a bug in the interreduction, not just for non-commutative rings. (See <https://cocoa.dima.unige.it/redmine/issues/961#note-11>)

```
/**/ NewWeylAlgebra(QQ, "x, y");
RingWithID(5, "QQ[x, y, dx, dy] ")
/**/ use It;
/**/ GBasis(ideal(x, dx));
[1]
```

##### #3 - 28 Apr 2017 16:05 - Anna Maria Bigatti

- Status changed from Feedback to Closed
- % Done changed from 90 to 100

Checked: interreduction does not depend on commutativity.  
Cleaned up. Closing