

## CoCoALib - Bug #74

### printing polynomials

22 Dec 2011 19:36 - Anna Maria Bigatti

<b>Status:</b>	New	<b>Start date:</b>	22 Dec 2011
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	10%
<b>Category:</b>	Various	<b>Estimated time:</b>	5.00 hours
<b>Target version:</b>	CoCoALib-1.0	<b>Spent time:</b>	0.00 hour

#### Description

```
/**/ K ::= QQ[a,b]; R := NewFractionField(K); Use R[x];  
/**/ x^2 - (1/(a))*x + 1;
```

prints as

```
x^2 + (-1/a) * x + 1
```

Does this look bad? Some considerations:

- The original rule for writing polynomials was:  
"when the coefficient ring is not ZZ or QQ the coefficients are all printed within brackets", e.g.

```
(1) *x^2 + (-1/a) * x + (1)
```

- Then I had to agree that so many "(1)\*" and "(-1)\*" looked quite heavy and I modified it:  
"when coefficients-fractions are not in QQ they are printed within brackets", e.g.

```
a*x^2 + (-2/a) * x - 3/5
```

I'm undecided whether "x^2 -(1/a)\*x +1" is really better than "x^2 +(-1/a)\*x +1" (especially considering how tedious it is to describe and implement this case...)

Any opinion? Examples to be considered?

#### Related issues:

Related to CoCoALib - Feature #222: Printing polynomials - spaces between terms	<b>In Progress</b>	<b>08 Aug 2012</b>
Related to CoCoALib - Feature #1117: Better printing of negative coeffs	<b>In Progress</b>	<b>07 Nov 2017</b>
Related to CoCoALib - Design #1156: Printing for RingElem	<b>New</b>	<b>12 Feb 2018</b>

#### History

##### #1 - 01 Apr 2014 17:35 - Anna Maria Bigatti

- Target version set to CoCoALib-0.99533 Easter14

##### #2 - 04 Apr 2014 17:22 - John Abbott

- Target version changed from CoCoALib-0.99533 Easter14 to CoCoALib-0.99534 Seoul14

##### #3 - 14 Jul 2014 11:07 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99534 Seoul14 to CoCoALib-1.0

**#4 - 07 Nov 2017 12:34 - John Abbott**

- Related to Feature #1117: Better printing of negative coeffs added

**#5 - 12 Feb 2018 12:33 - John Abbott**

- Related to Design #1156: Printing for RingElem added