## CoCoALib - Feature \#46

Feature \# 39 (Closed): Squarefree factorization
Feature \# 43 (Closed): Squarefree factorization - for polynomials
Feature \# 44 (Closed): Squarefree factorization - univariate polynomials

## Squarefree factorization - univariate polynomials, char p>0

30 Nov 2011 17:26 - John Abbott

| Status: | Closed | Start date: | 20 Dec 2011 |
| :--- | :--- | :--- | :--- |
| Priority: | Normal | Due date: |  |
| Assignee: | John Abbott | \% Done: | $100 \%$ |
| Category: | New Function | Estimated time: | 0.00 hour |
| Target version: | CoCoALib-0.99531 | Spent time: | 0.45 hour |

## Description

We consider only the case of prime characteristic.
Needs more care than char=0 case because

- $p$-th power of a poly has zero formal derivative
- need to compute $p$-th roots of field elements
- what happens if coeffs are not in a finite field? (e.g. ZZ/(p)[x][y] -- multivariate masquerading as univariate!)


## Subtasks:

Feature \# 69: p-th root
Closed
Related issues:
Related to CoCoALib - Feature \#796: CoCoALib function for radical (or SqFree)...
Closed
05 Nov 2015

History
\#1-23 Oct 2013 20:23 - John Abbott

- Status changed from New to Closed
- Assignee set to John Abbott

This task is already handled by the port of d'Ali's impl of Bernardin's algm.

## \#2-29 Oct 2013 12:35-Anna Maria Bigatti

- Target version set to CoCoALib-0.99531

