## CoCoALib - Feature #246

# Approx QIR

01 Oct 2012 11:45 - John Abbott

Status: New Start date: 01 Oct 2012

Priority: Normal Due date:

Assignee: % Done: 0%

Category:New FunctionEstimated time:0.00 hourTarget version:CoCoALib-1.0Spent time:0.10 hour

## **Description**

Implement (in C++) approximate QIR following the article by Kerber+Sagraloff (publ ISSAC 2011).

The impl will need to base itself on interval arithmetic (probably the impl in the GNU MPFR library).

### Related issues:

Related to CoCoA-5 - Support #242: CoCoA-5 Projects for students (e.g. credit... In Progress 28 Sep 2012

Related to CoCoALib - Feature #974: QIR/RealRootRefine: improve behaviour if ... In Progress 17 Nov 2016

## History

#### #1 - 01 Oct 2012 12:24 - John Abbott

The web page for MPFR reports that there is a library MPFI which implements interval arithmetic on top of MPFR.

## #2 - 28 Jan 2013 08:07 - Anna Maria Bigatti

- Category set to New Function

## #3 - 01 Apr 2014 17:35 - Anna Maria Bigatti

- Target version set to CoCoALib-0.99533 Easter14

### #4 - 04 Apr 2014 17:16 - John Abbott

- Target version changed from CoCoALib-0.99533 Easter14 to CoCoALib-1.0

## #5 - 17 Nov 2016 19:16 - John Abbott

- Related to Feature #974: QIR/RealRootRefine: improve behaviour if input interval has "nasty" endpoints added

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