

CoCoALib - Feature #1323

Improve RealRoots: compute sqfr decomp

30 Sep 2019 16:09 - John Abbott

Status:	New	Start date:	30 Sep 2019
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Improving	Estimated time:	0.00 hour
Target version:	CoCoALib-1.0	Spent time:	0.60 hour
Description			
Consider changing RealRoots so that it computes the sqfr decomp of the input poly, then works on the separate pieces. Joining the answers together may require some thought/computation.			

History

#1 - 30 Sep 2019 16:11 - John Abbott

I have already begun writing a package called RRList.

I think this is related, esp. as regards combining the intervals for different polys.

RRList should use CoprimeFactorBasis (if it does not already).

#2 - 30 Sep 2019 16:14 - John Abbott

Sqfr decomp should always be reasonably quick; full factorization could be slow if the input is "nasty".

One could consider looking for self-reciprocal factors... not sure it is worth it.