

CoCoALib - Feature #1427

New function: LawrenceMat

27 Feb 2020 16:25 - Anna Maria Bigatti

Status:	Closed	Start date:	27 Feb 2020
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	New Function	Estimated time:	1.23 hour
Target version:	CoCoALib-0.99700	Spent time:	1.20 hour
Description			
Bring LawrenceMat into CoCoALib. Currently hidden in toric.cpkg5			

History

#1 - 27 Feb 2020 17:30 - Anna Maria Bigatti

- % Done changed from 0 to 60

essentially done  
now testing

#2 - 27 Feb 2020 18:37 - Anna Maria Bigatti

- Status changed from New to Feedback

Done. Tested, Documented. Checking in.

#3 - 06 Mar 2020 15:43 - John Abbott

- % Done changed from 60 to 80

What is the definition of *Lawrence lifting*?

I found a paper on ArXiv: [arxiv.org/pdf/1508.05461.pdf](https://arxiv.org/pdf/1508.05461.pdf) which gives a slightly different defn.

#4 - 06 Mar 2020 15:48 - John Abbott

Any objections to changing the return type to ConstMatrixView?  
It seems more "natural/efficient" to me than necessarily building a DenseMat... that's all.

UPDATE but it probably makes it harder to export to CoCoA-5. I'll leave it as it is.

#5 - 06 Mar 2020 16:07 - John Abbott

- Status changed from Feedback to Closed

- % Done changed from 80 to 100

- Estimated time changed from 1.00 h to 1.23 h

#6 - 06 Mar 2020 16:35 - Anna Maria Bigatti

John Abbott wrote:

Any objections to changing the return type to ConstMatrixView?  
It seems more "natural/efficient" to me than necessarily building a DenseMat... that's all.

**UPDATE** but it probably makes it harder to export to CoCoA-5. I'll leave it as it is.

I think we can do it! after all many functions for matrices are like that.

definition

I used my definition which I already had for toric.  
And that is also the used in KR book and by Herzog in his Hue lectures.