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Improving a CGS-QE algorithm. (English) [Zbl 1460.13051](#)

Kotsireas, Ilias S. (ed.) et al., Mathematical aspects of computer and information sciences. 6th international conference, MACIS 2015, Berlin, Germany, November 11–13, 2015. Revised selected papers. Cham: Springer. Lect. Notes Comput. Sci. 9582, 231-235 (2016).

Summary: A real quantifier elimination algorithm based on computation of comprehensive Gröbner systems introduced by Weispfenning and recently improved by us has a weak point that it cannot handle a formula with many inequalities. In this paper, we further improve the algorithm so that we can handle more inequalities.

For the entire collection see [\[Zbl 1334.68018\]](#).

MSC:

- 13P10** Gröbner bases; other bases for ideals and modules (e.g., Janet and border bases)
- 03C10** Quantifier elimination, model completeness, and related topics
- 68W30** Symbolic computation and algebraic computation

Cited in **4** Documents

Keywords:

[QE](#); [comprehensive Gröbner system](#); [Descartes' rule](#)

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