



Correction to: On the Polyhedral Homotopy Method for Solving Generalized Nash Equilibrium Problems of Polynomials

Kisun Lee¹ · Xindong Tang²

Published online: 3 May 2023
© The Author(s) 2023

Correction to: Journal of Scientific Computing (2023) 95:13.
<https://doi.org/10.1007/s10915-023-02138-0>

The original version of the article unfortunately contained a mistake in three places caused by miscommunication in the process of publication. It has been corrected in this correction and the original article has been corrected.

1. On the 7th last line page 8 (Step 3 of Algorithm 3.1) in the original version of the article, it says:
“If $V_i = \emptyset$ for all $i \in \{1, \dots, N\}$, or $f_i(v_i, u_{-i}) - \dots$ for all $v_i \in V_i \cap X_i(u_{-i})$, then go to the next step. Otherwise, go back to Step 2.”

This sentence is incorrect and should be corrected to

“If $V_i = \emptyset$ for all $i \in \{1, \dots, N\}$, or $f_i(v_i, u_{-i}) - f_i(u_i, u_{-i}) \geq 0$ for all $i \in \{1, \dots, N\}$ and for all $v_i \in V_i \cap X_i(u_{-i})$, then go to the next step. Otherwise, go back to Step 2.”

2. On the 4th last line on page 14, after “the variety”, there should be a “{” before the $x_1 \in \mathbb{C}^{n_1}$, and there should be a “= 0” after “ $g_{1,m_1}^w(x_1, z_{-1})$.” The sentence should be corrected to:

The original article can be found online at <https://doi.org/10.1007/s10915-023-02138-0>.

✉ Xindong Tang
xindong.tang@polyu.edu.hk
<https://klee669.github.io>

Kisun Lee
kil004@ucsd.edu
<https://www.polyu.edu.hk/ama/profile/txd/>

¹ Department of Mathematics, University of California San Diego, 9500 Gilman Drive, La Jolla, CA 92093, USA

² Department of Applied Mathematics, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

"For a generic $z_{-1} \in \mathbb{C}^{\hat{n}-\hat{n}_1}$, [37, Proposition 2.2] implies that the variety $\{x_1 \in \mathbb{C}^{\hat{n}_1} : g_{1,1}^w(x_1, z_{-1}) = \cdots = g_{1,m_1}^w(x_1, z_{-1}) = 0\}$ is smooth, i.e., the matrix $(\text{Jac}_i^w)^\circ$ has full column rank at (x_1, z_{-1}) for all $x_1 \in \mathbb{C}^{\hat{n}_1}$."

3. For reference [22], the title should be corrected to:
"GloptiPoly3: moments, optimization and semidefinite programming."
4. In the beginning of Lemma 4.3, change "Let p be a polynomial" to "Let p be a dense polynomial".

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.