## **RETRACTION NOTE**



## Retraction Note: The Sachs theorem and its application on extended adjacency matrix of graphs

Bo Deng<sup>1,2,3</sup> · Caibing Chang<sup>1</sup> · Kinkar Chandra Das<sup>4</sup>

Published online: 8 April 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Retraction Note: Journal of Combinatorial Optimization (2022) 45:23 https://doi.org/10.1007/s10878-022-00938-y

The Publisher has retracted this article in agreement with the Editor-in-Chief. The article was submitted to be part of a guest-edited issue. An investigation by the publisher found a number of articles, including this one, with a number of concerns, including but not limited to compromised editorial handling and peer review process, inappropriate or irrelevant references or not being in scope of the journal or guest-edited issue. Based on the investigation's findings the publisher, in consultation with the Editor-in-Chief therefore no longer has confidence in the results and conclusions of this article.

The authors have not responded to correspondence regarding this retraction.

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

The online version of the original article can be found at https://doi.org/10.1007/s10878-022-00938-y.

☐ Bo Deng dengbo450@163.com

Caibing Chang changcaibing 2018 @ 163.com

Kinkar Chandra Das kinkardas2003@gmail.com

- School of Mathematics and Statistics, Qinghai Normal University, Xining 810016, People's Republic of China
- Academy of Plateau Science and Sustainability, Xining 810016, Qinghai, People's Republic of China
- The State Key Laboratory of Tibetan Information Processing and Application, Xining 810008, Qinghai, People's Republic of China
- Department of Mathematics, Sungkyunkwan University, Suwon 16419, Republic of Korea

