

Editorial note

On 12 October 2018, the Journal’s Editors-in-Chief received an email from Konstantinos Gaitanas, in which he claimed that the paper “*On products of quartic polynomials over consecutive indices which are perfect squares*”, authored by Kantaphon Kuhapatanakul, Natnicha Meeboomak and Kanyarat Thongsing, which appeared in the latest issue of “Notes on Number Theory and Discrete Mathematics” [1] was ‘actually the same’ as Gaitanas’ paper “*An infinite family of quartic polynomials whose products of consecutive values are finitely often perfect squares*”, published in “Integers” [2].

After scientific review and comparison of the two papers, our opinion is that both papers were written independently, and there is a coincidence only at certain places, like between the Corollary in Gaitanas’ paper (page 3) and the partial case of Theorems 1, 2 for $a = 1$ in Kuhapatanakul et al.’s paper (page 60). The two papers employ distinct methods, and thus Kuhapatanakul et al.’s paper contains also other results.

Further, we take into consideration that Kuhapatanakul et al.’s paper is based on nine references, including all the four references used in Gaitanas’ paper, plus five more. The most recent reference, which both papers refer to is “*On the occurrence of perfect squares among values of certain polynomial products*” by Erhan Gürel [3], and both papers seem to have been inspired by this one.

From Gaitanas’ paper, it is seen that it was submitted to “Integers” on 4 October 2016, revised on 5 March 2017, accepted on 10 July 2017, and published on 17 July 2017. The paper by Kuhapatanakul et al. was submitted to “Notes on Number Theory and Discrete Mathematics” on 31 October 2017, and received two positive reviews on 7 June 2018 and 17 August 2018, when it was accepted for publication. However, from our communication with Kuhapatanakul, we were informed that the paper was developed as a senior project of his students Meeboomak and Thongsing, and presented under the same title at the 12th Conference on Science and Technology for Youths on 3–4 June 2017 in the Bangkok International Trade and Exhibition Centre (BITEC), Bangna, i.e., a month before the publication of Gaitanas’ paper in “Integers.” While this presentation does not qualify for research publication and is not accessible online, we do acknowledge from this evidence that the research by Kuhapatanakul et al. had started considerably earlier than the beginning of June 2017.

For this reason, our resolution of the situation is that there is no room for plagiarism allegations, but – as Dr Gaitanas also pointed out in his email to us – there has been “just a big coincidence”, which happened a result of the parallel work on this obviously interesting, important and topical research area.

Given the timing of the two papers, we consider that Gaitanas' claim for scientific priority is justifiable – regarding the coincidence detected between his Corollary and Kuhapatanakul et al.'s partial case, as pointed above, but we also acknowledge the different methods employed for reaching the results in the papers, and the additional results obtained by Kuhapatanakul et al.

In conclusion, we will be happy to see the two teams benefit from this situation, by mutually acknowledging their results and citing their papers. This is in the best interest of both the authors and the other interested readers and authors in this field of number theory. We would like to offer both teams to consider collaborating on subsequent steps in this direction of research, and submit a joint work for possible publication in “Notes on Number Theory and Discrete Mathematics”.

References

- [1] Kuhapatanakul, K., Meeboomak, N., & Thongsing, K. (2018) On products of quartic polynomials over consecutive indices which are perfect squares. *Notes on Number Theory and Discrete Mathematics*, 24 (3), 56–61.
- [2] Gaitanas, K. (2017) An Infinite family of quartic polynomials whose products of consecutive values are finitely often perfect squares. *Integers*, 17, #A32, 3 pages.
- [3] Gürel, E. (2016) On the occurrence of perfect squares among values of certain polynomial products. *American Mathematical Monthly*, 123, 597–599.