

Book Review

The Universe of Conics

Georg GLAESER, Hellmuth STACHEL, Boris ODEHNAL: *The Universe of Conics. From the Ancient Greeks to 21st Century Developments*

Second Edition, Springer Berlin, Heidelberg, 2024.

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The first edition of this book already saw a review, written by Robert Bix, in the Journal for Geometry and Graphics back in 2016 [1]. Now it is time to write about the second edition which appeared in 2024 and – in the authors’ words – contains “roughly 15% more pages.” It features correction of typos and minor errors but also additional content and some recent finding. Most of the newly added references refer to conics in relation to triangle geometry and to billiards in conics. This last topic also accounts for the only change in the table of contents (Section 9.6, “Billiards in Ellipses”).

There are books that automatically will raise the authors h-index by one and this book is among them. At the time of writing this text (August 2025) it has been cited precisely 200 times on Google Scholar. It was not difficult to predict this book’s warm reception by a large audience and it is not risky to predict ongoing success. Competing works are either rather old and therefore difficult to access and behind current research or simple less deep and comprehensive.

Consequently, it is no surprise that authors of the Journal for Geometry and Graphics have significantly contributed to the citation statistics of the *Universe of Conics*. Between 2019 and 2024 it has been cited no less than 14 times in this journal and the present issues 29/1 increases the count by two, in the articles by Minami and by Csiba et al. The latter article exemplifies – for example in the proofs of Theorems 1.6, 1.7, and 1.10 – one of the great benefits of the *Universe of Conics*: It presents old but very useful knowledge that is in danger of being forgotten. In doing so, it used modern language and notation and thus make old wisdom accessible to modern authors.

The praising words of Bix in [1] still hold true but much of what is written in [2], the review of the sibling *The Universe of Quadrics* from the same author trio, largely applies to this work. This is particularly true for the style of writing and of visualization. The purchase is highly recommended to those who haven’t bought it yet and an upgrade is warmly suggested to owners of the first edition.

References

- [1] R. BIX: *Book review: The Universe of Conics. From the ancient Greeks to 21st century developments*. Journal for Geometry and Graphics **20**(2), 285, 2016.
- [2] H.-P. SCHRÖCKER: *Book review: The Universe of Quadrics*. Journal for Geometry and Graphics **25**(1), 157–158, 2021.

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