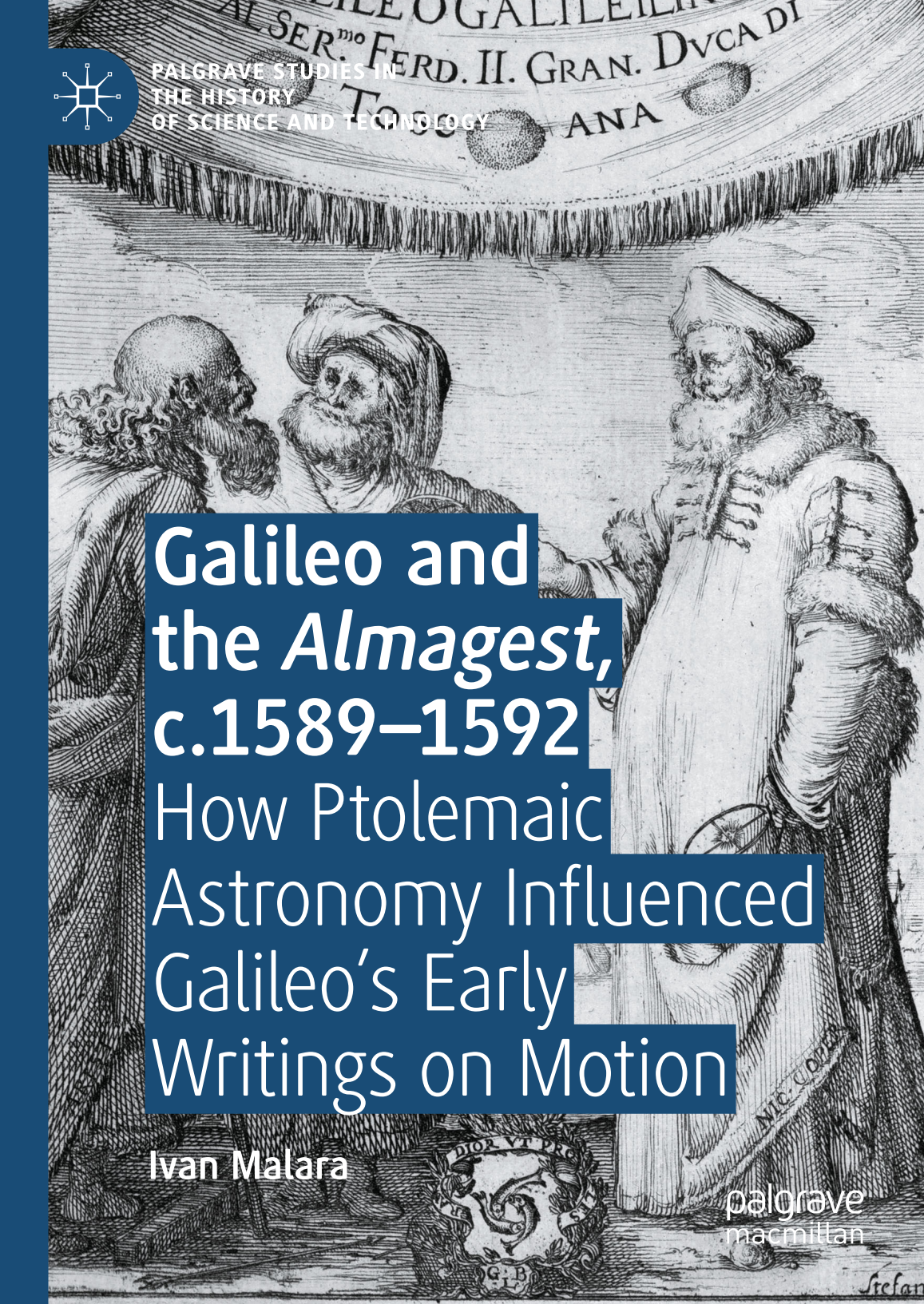

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Galileo and the *Almagest*, c.1589–1592

How Ptolemaic Astronomy Influenced Galileo's Early Writings on Motion

Ivan Malara

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… nihil est enim in historia pura et inlustri brevitate dulcius.

(*Cicero*, Brutus, *262*)

To my parents and brother

Preface

This book came into existence almost by chance. Its three principal Chapters (2–4) were originally conceived and written as separate articles intended for publication in distinct journals. In their fundamental aspects, they took shape in a span of less than a year, from November 2022 to September 2023. For the sake of convenience, I presented them collectively for the scrutiny of my initial and patient readers. It was their counsel that prompted me to publish all three under a unified title. They urged me to embark on a less commonly traversed path today, leading to the publication of a first monograph not tethered to my doctoral thesis. Despite grappling with numerous uncertainties, I decided to heed their advice. This decision entailed appending a substantive introduction to the subject matter, rectifying errors and oversights in the existing content, expanding the bibliography comprehensively, and concluding with some general observations regarding the scope and limitations of my study. Indeed, this was the course I undertook. Naturally, the final outcome, however it may be evaluated, rests solely on my shoulders.

While I could not draw upon an extensive research project akin to a doctoral thesis, the central figure of this book, Galileo Galilei, has been the focus of my research since my undergraduate years. The University of Milan afforded me the opportunity to continue my studies on Galileo, concentrating on a challenging yet underexplored theme concerning the methodologies employed by the Pisan scientist in the study of one of antiquity's most renowned scientific works: Claudius Ptolemy's *Almagest*.

Fortunately, Ptolemy boasts a rich research tradition and a substantial body of literature. Additionally, a tool accessible to all greatly facilitated my work—the database resulting from the PAL project (*Ptolemaeus Arabus et Latinus*: https://ptolemaeus.badw.de/start), overseen by the Bavarian Academy of Sciences (Bayerische Akademie der Wissenschaften). Without this invaluable resource, locating and studying the sources for my research within such a brief timeframe would have been an insurmountable challenge. The efforts of the team led by Dag Nikolaus Hasse proved indispensable to me in the past year and a half, as essential as the online archive *Galileo//thek@* of the Galileo Museum (https://www.museogalileo.it/it/biblioteca-e-istituto-di-ricerca/progetti/teche/827-galileo-theka.html) has been since the beginning of my studies.

These two databases, in conjunction with various other resources, have provided me with optimal conditions for conducting my research. Nowadays, consulting primary sources is considerably more accessible than it was three decades ago, making it a responsibility to do so. In this book, I have chosen to prioritize the voices of the sources, both in the main text (in translation) and in footnotes (in the original language). The overarching objective of this book is to allow the sources to speak for themselves, enabling them to mutually illuminate each other and thereby restoring a meaning that might otherwise be lost. While this objective is undoubtedly challenging, I would consider myself gratified if I were able to achieve it even in part.

Galileo's *De motu antiquiora*, the source from which the study presented here originated, has been fully translated into English by Raymond Fredette. His translation is readily available online as part of the extensive collection in the ECHO database of the Max Planck Institute for the History of Science (https://echo.mpiwg-berlin.mpg.de/content/scientific_revolution/galileo). In this book, I carried out all translations from *De motu antiquiora*, always keeping a close eye on Fredette's translation. All the other translations from Latin and Italian texts are my own, unless stated otherwise.

Milan, Italy — Ivan Malara

Acknowledgments

Many people have helped me with my research, making this book possible. I thank Eileen Reeves and A. Mark Smith for their careful reading of early drafts. I am also grateful to Riccardo Bellé, Sven Dupré, Jacqueline Feke, David Juste, Salvatore Ricciardo, and Matteo Valleriani for their assistance and encouragement. I deeply appreciate the support from the Philosophy Library at the University of Milan and the Library of the Galileo Museum in Florence.

Thanks to the participants of the "Peurbachian" seminar, organized by Richard L. Kremer and Razieh S. Mousavi, for our enriching meetings. Special thanks to the CeSIM (*Centro per la Storia Intellettuale del Medioevo*) group in Milan, and especially to Luigi Campi, for fostering informal yet thought-provoking discussions about our works in progress. Consulting with colleagues like David Del Bianco, Michele Meroni, and Luigi Valletta has greatly contributed to the improvement of this book.

Finally, I extend my gratitude to Luca Bianchi, Michele Camerota, Franco Giudice, Niccolò Guicciardini, and Maarten Van Dyck for their guidance. Above all, I thank Elio Nenci for his unwavering support and mentorship.

Also, I am grateful in advance to everyone who approaches this book with a critical mindset. I am indeed deeply convinced that history exists within a boundary that historians continuously corroborate and redefine through well-founded arguments and critiques. This form of constructivism requires the collaboration of multiple trained minds and serves as the most effective means to avoid both historical denialism and mythologies rooted in political ideologies or personal beliefs.

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About the Author

Ivan Malara is a post-doctoral fellow at the University of Milan, Italy. His current research focuses on Galileo Galilei's reception of Ptolemy, with a general interest in exploring the intricate tapestry of sources that may have influenced Galileo's work.

Abbreviations

BB	Bernardino Baldi, *De le vite de matematici* (trascrizione), vol. II, Boncompagni 156 (cat. 1862), 65 (cat. 1892), Albani 619 (?). Available online: https://echo.mpiwg-berlin.mpg.de/ECHOdocuView?url=/mpiwg/online/permanent/library/470S7R08/pageimg&start=1&pn=1&mode=imagepath.
EN	Galileo Galilei, *Opere*. National Edition, ed. by Antonio Favaro, 20 vols. Firenze: Barbèra, 1890–1909.
ENA	Galileo Galilei, *Opere*. Appendix to the National Edition, ed. by M. Camerota et al., 4 vols. Firenze: Giunti Editore, 2013–2019.
GBT	Giovanni Battista Teofilo's Latin translation of Theon's commentary on the *Almagest*. Paris, Bibliothèque nationale de France, lat. 7263. Available online: https://ptolemaeus.badw.de/ms/113/175/1r.

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