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★ **Trigonometrisch-astronomisches Rechnen kurz vor Copernicus. (German) [Trigonometric-astronomical computation shortly before Copernicus]**

Der Briefwechsel Regiomontanus-Bianchini. [The correspondence of Regiomontanus and Bianchini]

Boethius: Texte und Abhandlungen zur Geschichte der Exakten Wissenschaften [Boethius: Texts and Essays on the History of the Exact Sciences], 21.

Franz Steiner Verlag Wiesbaden GmbH, Stuttgart, 1989. viii+357 pp. DM 70.00.

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The bulk of this book is devoted to a combination of paraphrase and German translation of the astronomically relevant (in fact the dominating) parts of the letters exchanged in 1463–1464 between Regiomontanus and his older contemporary, the autodidact astronomer (etc.) Giovanni Bianchini. The complete letters were edited by Curtze in 1902 (other incomplete editions exist), but the author has been able to improve Curtze’s readings in many places, all of which are indicated in the notes.

The extensive calculations annexed to Regiomontanus’ letters only consist of sequences of numbers and a few explanatory comments. The author has reconstructed the meaning of the calculations and explains their content with reference to Regiomontanus’ astronomical and mathematical techniques. These calculations, and the letters themselves, are provided with extensive notes explaining all details and all well-known aspects of Ptolemean to Late Medieval planetary theory and techniques—it may serve as an illustration that the reader is supposed to be familiar with epicycles and equant, while Thābit’s theory of trepidation and the combined trepidation-precession theory of the Alfonsine Tables is presented in detail and depth. The notes also refer extensively to the other works of the two correspondents.

The book not only gives a good insight in Regiomontanus’ thinking at a critical moment of his development, close to the writing of *De triangulis* and the attack on Gherardo di Sabbionetta’s *Theorica planetarum*, showing him as a critical and empirically minded mind (the end of his last letter lists a sequence of fundamental problems riding the Ptolemaic and quasi-Ptolemaic astronomy of his times). It also gives a much more positive picture of Bianchini than suggested, e.g., by Zinner, thus explaining the value of the correspondence for Regiomontanus.

Reviewed by *Jens Høyrup*