



Figure 120(1). Individual latitudinal deviations for named stars from the Almagest star catalogue

close to an identity mapping) reflecting possible distortions (deformations) of the astronomical instruments. Then it occurs that we can reach the “epoch of Ptolemy” only for such deformations which are implied by about a 4% deviation of real instruments (e.g., the armillary sphere) from ideal ones. This is quite impossible, even for usual “common” instruments (let alone scientific ones).

Consequently, our results are stable with respect to the different deviations of both the numerical data and the proposed assumptions.

10. Dating of Other Catalogues

10.1. *Tycho Brahe’s catalogue.* The observations of Tycho Brahe were made at the end of the 16th century; in the edition used for this study [324], the catalogue is reduced to the year 1600. We choose the following 14 bright named stars as the information kernel of the catalogue: Arcturus (110), Spica (510), Lyra [Vega] (149), Aquila (288), Antares (553), Castor (424), Sirius (818), Pollux (425), Procyon (848), Denebola (488), Capella (222), Caph (189), Regulus (469), and Shiat (317).

This list is not the same as the total list of named stars in the catalogue; these