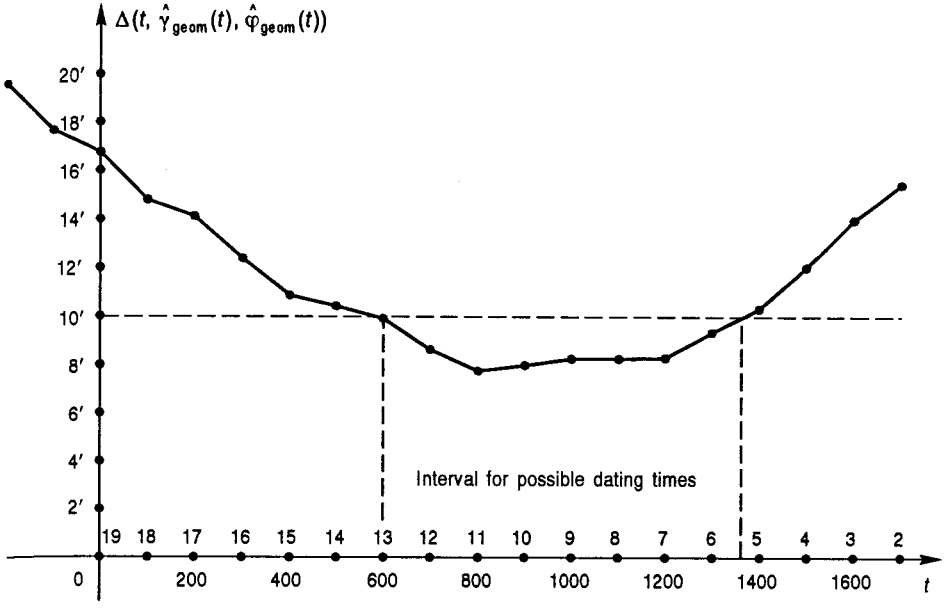

Figure 119. Graph of latitudinal deviation. The proof that the star catalogue in the Almagest was compiled in 600–1300 A.D.

is, in fact, "geometrically optimal" for the eight named stars. Let us illustrate this result by means of Table 3. The four stars 818, 288, 509, and 892 are the spikes which were previously removed from consideration.

Figure 120(1) shows graphs of individual latitudinal deviations dependent on t for the eight stars, given that $\gamma = 21'$, $\beta = 0$.

Hence,

(1) we confirmed the accuracy claimed by the compiler of the Almagest star catalogue;

(2) we calculated the time interval containing the actual date of observation. We also proved that the catalogue could not have been compiled (on the basis of actual observations) outside this time interval;

(3) we proved that the compiler made an error in the determination of the position of the ecliptic pole and calculated it ($\gamma = 20'$); besides, he made an error in the determination of the position of the equator ($\beta < 5'$). It is also important to note that the systematic error γ explains the existence of a strange "Peters' sinus" in latitudinal deviations for zodiacal stars [320, p. 6];

(4) we defined the information kernel (eight named stars) in accordance with the accuracy of the measurements of the coordinates.