

### **III,34. That the movements of the heavens are not perfectly circular.**

Finally, we must not think that all centers of the Planets are always situated exactly on the same plane, or that the circles they describe are absolutely perfect; let us instead judge that, as we see occurring in all other natural things, they are only approximately so, *and also that they are continuously changed by the passing of the ages.* [emphasis added]

### **III,36. Concerning their longitudinal movement**

... But a few centuries from now, all these things will be observed to have changed {from the way in which they now are}, and {those who will be living at that time will be able to observe that} the individual Planets, and also the Earth, will intersect the plane on which the Ecliptic now is at different places...

### **III,157. The final and most general cause of all the inequalities observed in the movements of bodies in the universe.**

Finally, we shall not wonder that all the Planets slightly deviate in every way, both longitudinally and latitudinally, from those perfect circular motions which they are always attempting. For, inasmuch as all the bodies in the universe are contiguous and act on one another, {there being no possibility of a void}, the movement of each is affected by the movements of all the others and therefore varies in innumerable ways.