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Title: Applying the Titius-Bode Relation to Exoplanetary Systems: a new useful
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Abstract: Multiple Planets and Multiple Star Systems

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The approximately even logarithmic spacing between the planets of our Solar System motivated the Titius–Bode (TB) relation (aka "Bode's Law"). The TB relation played an important role in the discovery of the Asteroid Belt. Uranus could have been discovered earlier if the TB relation had been taken more seriously. Since the TB relation was a useful guide in the prediction of undetected planets in our Solar System, it may be useful for making predictions about the periods of exoplanets in multiple-exoplanet systems. To test this idea, we evaluate the extent to which newly detected exoplanet systems containing at least four planets adhere to a generalized TB relation. After identifying exoplanetary systems most likely to be complete, we find that 96% adhere to the TB relation to a similar extent or greater than the Solar System does. Systems detected by the Kepler mission in particular show a strong adherence to the TB relation. If this trend is correct, the TB relation can be profitably applied to multi-exoplanet systems to predict the periods of as yet undetected exoplanets. We will discuss the extent to which we understand the physics underlying the TB relation and why it is better understood as a useful rule of thumb rather than an exact law or just a coincidence.