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Stellar wobble in triple star systems

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Abstract

The radial velocity method of extra-solar planet's detection consists in measuring the star's wobble which is assumed to be caused by a planet companion. However, other effects can cause stellar wobble thus it is important to study these in detail to avoid erroneous new planet announcements.

To date, there are several reported exoplanet detections within binary star systems. These findings are based on radial velocity data for the target star. However, the companion star could in turn have a companion of which we are not aware. We will describe how this hidden binary system affects the radial velocity of the target star, mimicking a planet in some circumstances [1], [2], [3].

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References

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