

The Solar neighbourhood in angle coordinates: the Hyades moving group

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I investigate the suggestion that the Hyades moving group in the Solar neighbourhood is the result of a recent inner Lindblad resonance. I use dynamical "torus" models of the Galaxy to understand the expected distribution of solar neighbourhood stars in angle coordinates for phase-mixed models and models which include a resonant component. I show that attempts to find the signatures of resonances in angle coordinates are strongly influenced by selection effects, including rather subtle effects associated with the relationship between action and angle for stars at a given point. These effects mean that one can not use simple tests to determine whether substructures seen in the Solar neighbourhood are associated with any given resonance.

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