Kinematic Features of a Milky Way Bulge Model

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We study the proper motion and radial velocity inside the peanut/X-shaped Milky Way bulge with a self-consistent N-body model. Two density peaks are identified along each line-of-sight using Gaussian kernel density estimator for each field, and the trend of the double-peak feature across the bulge region is consistent with previous studies. We find that in each field the radial velocities and proper motions near the density peaks slightly differs with the neighbourhood regions, showing a lack of low-velocity component. In addition, we demonstrated that the angular velocity of bulge cylindrical rotation cannot be measured with the difference of μ_l and peak separation.