THE CLUSTER NGC 330 IN THE SMC: RADIAL VELOCITIES OF INDIVIDUAL STARS

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Radial velocities based on 81 image tube spectra at 30 Å mm^{-1} are given for 25 stars (17 early type supergiants or upper main sequence stars and 8 late type stars) in the young SMC cluster NGC 330. An upper (one standard deviation) limit to the velocity dispersion is found to be 2 km s^{-1}. The mass-to-light ratio is likely to be less than 0.1 in solar units. Results for other young Magellanic Cloud clusters derived on the assumption that they are tidally limited are consistent with this result. Spectroscopic binaries with semi-amplitudes, K, greater than about 10 km s^{-1} appear to be rare or absent amongst the stars studied.

James E. Hesser (ed.), Star Clusters, 339.