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STATISTICAL STUDY OF AXIAL ROTATION IN A TYPE STARS WITH NEW DETERMINATION OF $v \sin i$

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We have observed all A type stars of the southern hemisphere brighter than 6.5 mag in order to perform statistical studies of axial rotation. The spectra were obtained at the 2.15 m telescope at CASLEO. We have used the method of Diaz et al. (2011) to calculate axial rotation velocities.

Figure 1 shows the distribution of stars by spectral type including 66 Am and 42 Ap stars. Preliminary results for A6-A9 interval and the comparison with $\langle v \sin i \rangle$ values from Royer et al. (2002, 2007) for a few common stars are shown in Figures 2 and 3. The last figure does not include Ap and Am stars.

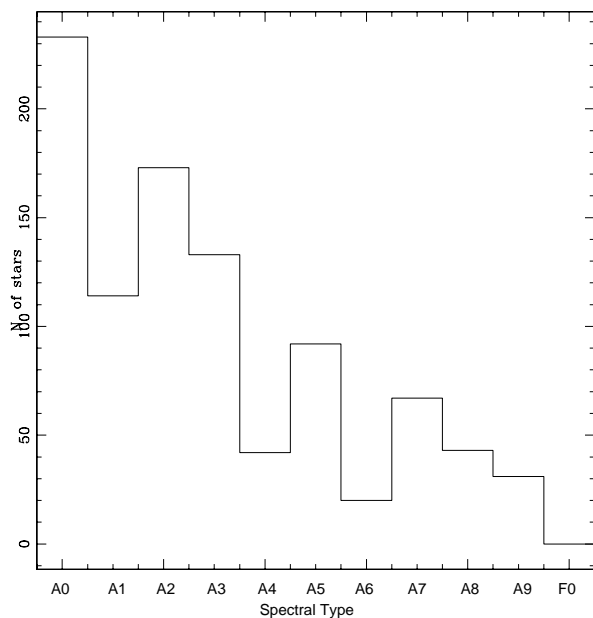


Fig. 1. Distribution of Spectral Type for the programme stars.

REFERENCES

- Diaz, C. G., Gonzalez, J. F., Levato, H., & Grosso, M. 2011, *A&A*, 531, A143
 Royer, F., Grenier, S., Baylac, M. O., Gomez, A. E., & Zorec, J. 2002, *A&A*, 393, 897

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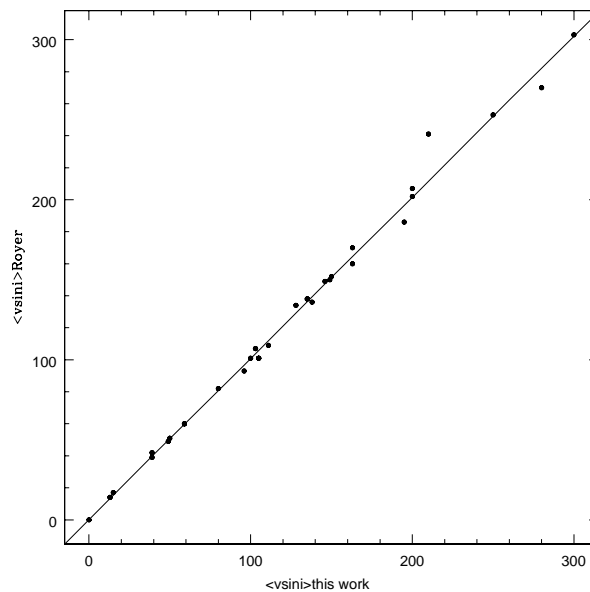


Fig. 2. Comparison with $\langle v \sin i \rangle$ values from Royer.

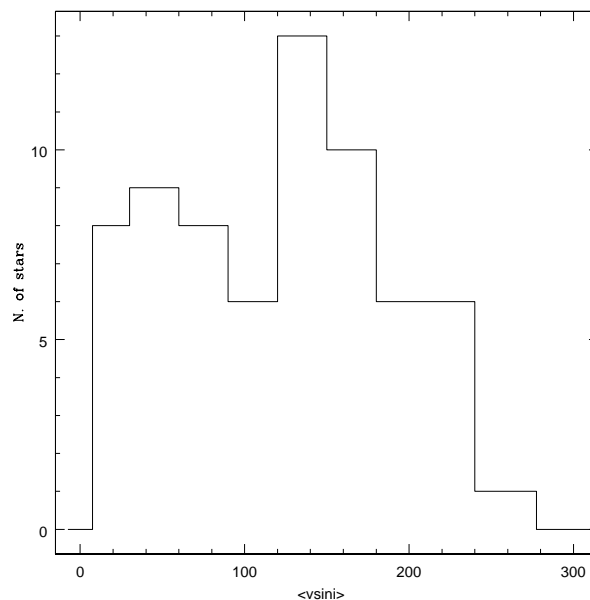


Fig. 3. Distribution of $\langle v \sin i \rangle$ values for this work.

- Royer, F., Zorec, J., & Gomez, A. E. 2007, *A&A*, 463, 671