Stellar Rotation
An Annotated Bibliography

Timothy Holmes
PHY 474 - Stellar Astrophysics
DePaul University

May 11, 2021

References

[1] J. Bouvier, "Observational studies of stellar rotation," *EAS Publications Series*, vol. 62, p. 143–168, 2013. [Online]. Available: http://dx.doi.org/10.1051/eas/1362005

This paper also gives a great overview on the methods to measure stellar rotation and goes into even more details on the calculations. The star observed in this paper are in the main sequence with a brief talk about larger stars. This paper also includes the evolutionary process of the stars.

[2] G. P. S. Gibb, M. M. Jardine, and D. H. Mackay, "Stellar differential rotation and coronal time-scales," *Monthly Notices of the Royal Astronomical Society*, vol. 443, no. 4, p. 3251–3259, Aug 2014. [Online]. Available: http://dx.doi.org/10.1093/mnras/stu1415

The authors of this paper was to observe the stellar rotations at different time scales. Differential rotation is a different way to measure the rotation of the star and what may be occurring with the star's physical properties (magnetic field, etc...

[3] P. F. L. Maxted, "Rotation of planet-hosting stars," *Handbook of Exoplanets*, p. 1705–1721, 2018. [Online]. Available: http://dx.doi.org/10.1007/978-3-319-55333-7$_1$8

[4] The author of this article gives a general introduction to stellar rotation. The main body of the paper has great detail of measuring stellar rotation and the evolution of the rotation of the star. This paper gives a great view on the methods used to measure the rotation of a star.

G. Meynet, A. Maeder, P. Eggenberger, S. Ekstrom, C. Georgy, C. Chiappini, G. Privitera, and A. Choplin, "Impact of rotation on stellar models," *Astronomische Nachrichten*, vol. 337, no. 8-9, p. 827–831, Sep 2016. [Online]. Available: http://dx.doi.org/10.1002/asna.201612380

The purpose of this paper is to explain the affect that the rotation of stars have. The authors have a detailed list that includes: magnetic fields, age determination of clusters, angular momentum and tides due to stars, and finally early chemical evolution with the impact from rotation.

A. Palacios, "Influence of rotation on stellar evolution," *EAS Publications Series*, vol. 62, p. 227–287, 2013. [Online]. Available: http://dx.doi.org/10.1051/eas/1362007

The autors purpose for this paper is to only look at the evolution of stars and find the driven changes from rotation. The author of this paper had created a model to better understand a few key points.