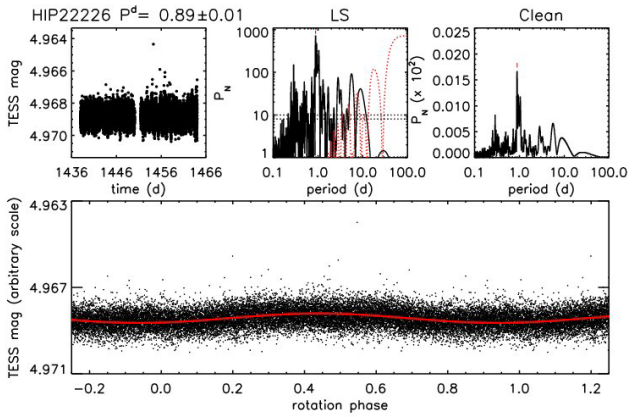

Fig. A.22. Photometric time sequence and periodogram for HIP 22226.

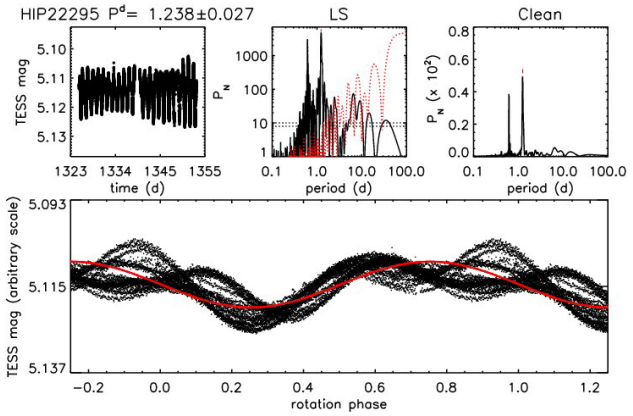

Fig. A.23. Photometric time sequence and periodogram for HIP 22295.

were flagged as members of Columba in Gagné et al. (2018b). The masses of the two components are close to 0.2 $M_{\odot}$. We measured for the first time the rotation period from the TESS photometric time series (Fig. A.22).

HIP 22295. The photometric rotation period first measured by Kiraga (2012) is confirmed by our analysis of the TESS data (Fig. A.23). The TESS data show a rapidly evolving double-dip light curve.

TYC 5899-0026-1. We measured for the first time the rotation period from the TESS photometric time series (Fig. A.24). The TESS data reveal TYC 5899-0026-1 to be an M3 star with very intense flare activity.

HIP 23200. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.25). The TESS data reveal more flare events superimposed on a very stable light curve.

HIP 23309. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.26). The TESS data reveal more flare events.

HIP 24947. We measured for the first time the rotation period from the TESS photometric time series (Fig. A.27).

HIP 25283. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.28).

HIP 25544 = HD 36435. Age indicators (Li, rotation period, R_X, R'_{HK}) converge on an age similar to or possibly slightly older than the Hyades. We adopted 700 ± 150 Myr. The photometric rotation period first measured by Koen & Eyer (2002) is confirmed by our analysis of the TESS data (Fig. A.29). The

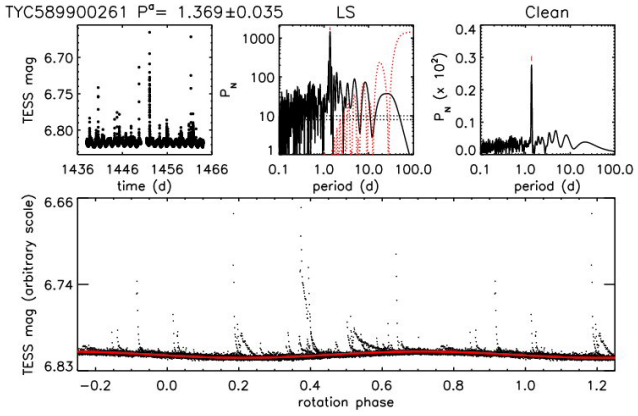

Fig. A.24. Photometric time sequence and periodogram for TYC 5899-0026-1.

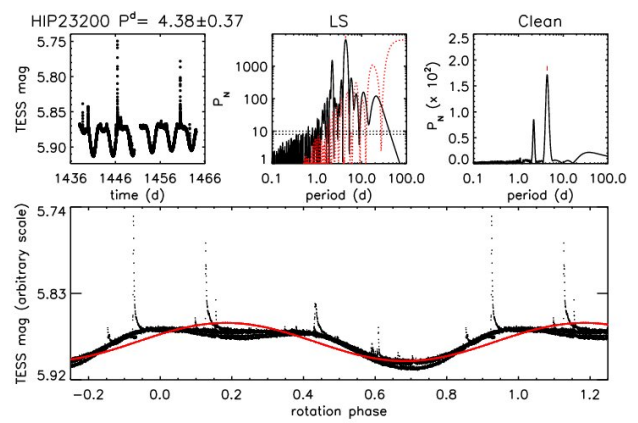

Fig. A.25. Photometric time sequence and periodogram for HIP 23200.

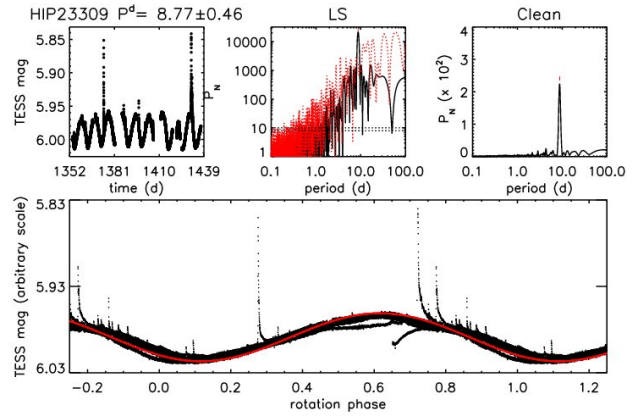

Fig. A.26. Photometric time sequence and periodogram for HIP 23309.

light curve exhibits a significant evolution from single-dip to double-dip shape.

ζ Lep = HIP 27288 = HD 38678. Early-type star with spatially resolved debris disk (Moerchen et al. 2007). It was proposed as a member of Castor MG by Barrado y Navascues (1998). An age of few hundred Myr was derived from isochrone fitting by several authors (e.g., Su et al. 2006; David & Hillenbrand 2015). However, the star was also proposed as a member of β Pic MG by Nakajima & Morino (2012). The β Pic membership and age was also adopted by Nielsen et al. (2019). BANYAN Σ returns a membership probability of 26.9% with the

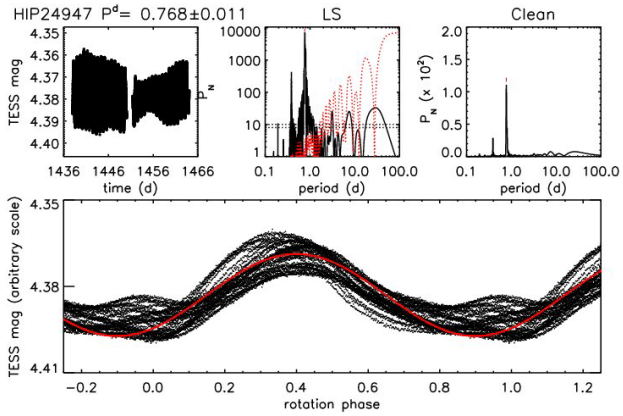

Fig. A.27. Photometric time sequence and periodogram for HIP 24947.

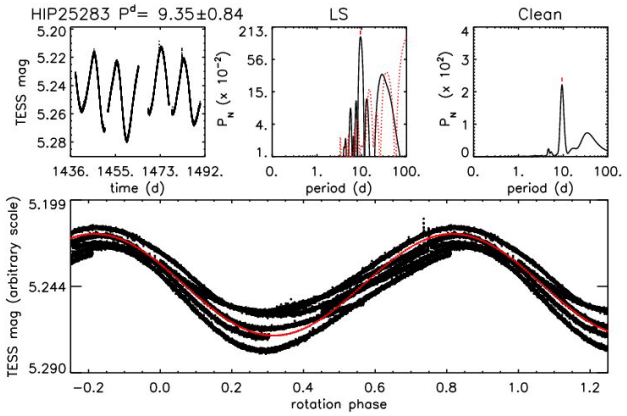

Fig. A.28. Photometric time sequence and periodogram for HIP 25283.

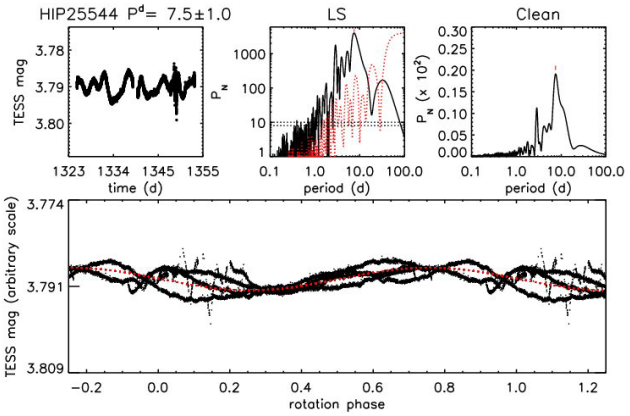

Fig. A.29. Photometric time sequence and periodogram for HIP 25544.

van Leeuwen (2007) astrometric parameters (adopted because of the lower errors with respect to *Gaia* due to very bright magnitude; *Gaia* values yield a similar value, 24.6%). We then considered the β Pic membership uncertain, and we adopted the age from isochrones, extending the minimum age to include the β Pic MG age.

TYC 7084-0794-1 = CD-35 2722. Star with BD companion (Wahhaj et al. 2011). The star was not moved to special targets (P0). The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.30). Numerous flare events are detected in the TESS time series.

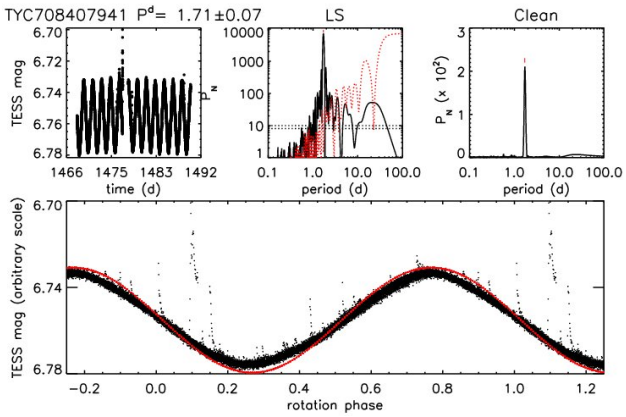

Fig. A.30. Photometric time sequence and periodogram for TYC 7084-0794-1.

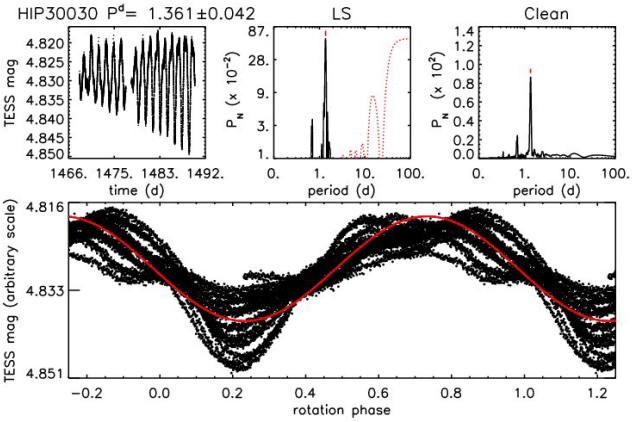

Fig. A.31. Photometric time sequence and periodogram for HIP 30030.

HIP 30030 = HD 43989. Originally classified as a member of Tuc-Hor; the updated analysis indicates membership in the Columba association. Using TESS photometric time series, we measured a rotation period $P = 1.361 \pm 0.042$ days with very high confidence (Fig. A.31), which supersedes the earlier determination of $P = 1.16$ days measured by Cutispoto et al. (1999).

HIP 30034 = HD 44627 = AB Pic. Star with substellar companion close to the edge of the IRDIS field of view discovered by Chauvin et al. (2005b). The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.32).

HIP 30314. We measured for the first time the rotation period from the TESS photometric time series (Fig. A.33).

GSC 8894-0426. The photometric rotation period first measured by Kiraga (2012) is confirmed by our analysis of the TESS data (Fig. A.34). Numerous flare events are detected in the TESS time series.

TYC 7617-0549-1. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.35).

HIP 31878. HIP 31711 at 18 000 au is a probable wide companion. The discrepancy in the astrometric parameters in *Gaia* DR2 is likely linked to the binarity of HIP 31711. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.36).

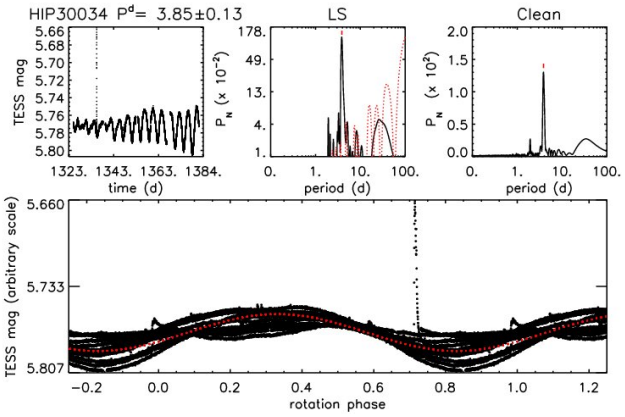

Fig. A.32. Photometric time sequence and periodogram for HIP 30034.

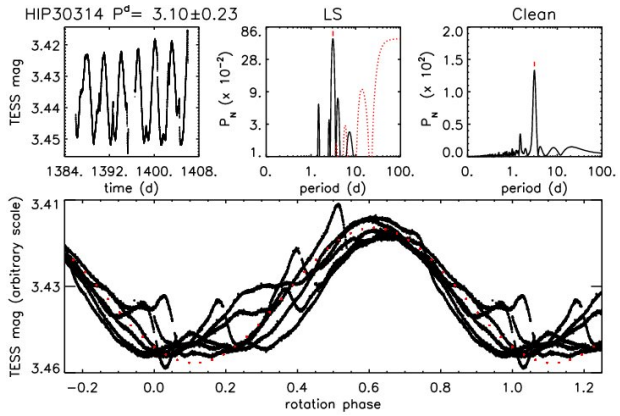

Fig. A.33. Photometric time sequence and periodogram for HIP 30314.

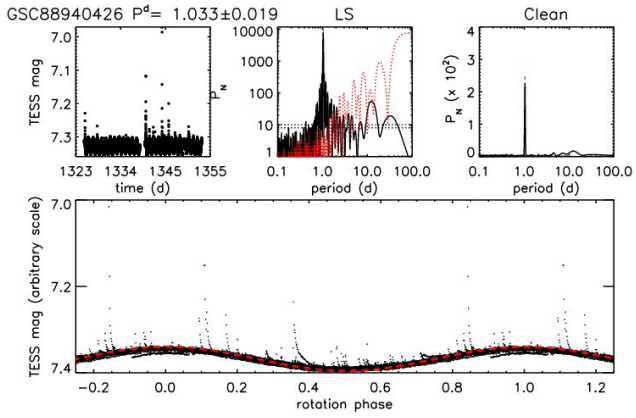

Fig. A.34. Photometric time sequence and periodogram for GSC 8894-0426.

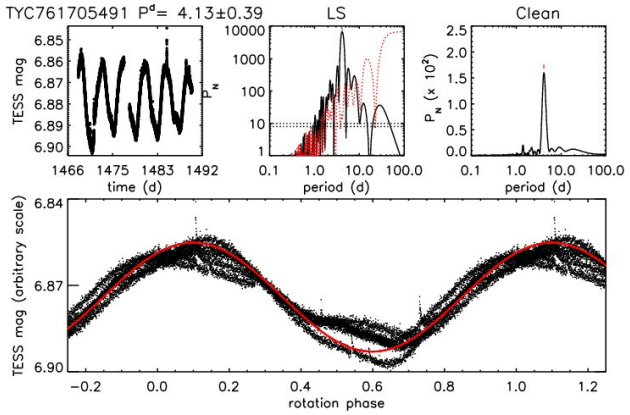

Fig. A.35. Photometric time sequence and periodogram for TYC 7617-0549-1.

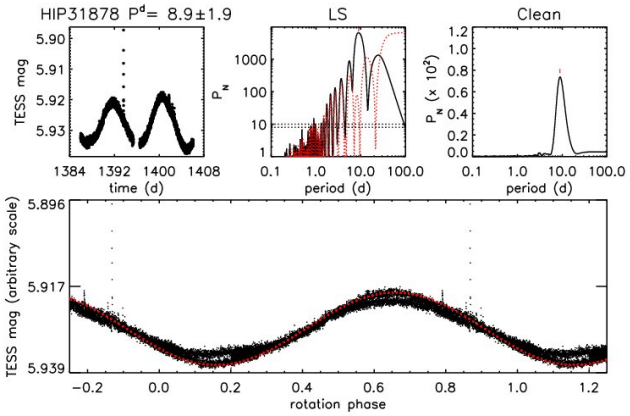

Fig. A.36. Photometric time sequence and periodogram for HIP 31878.

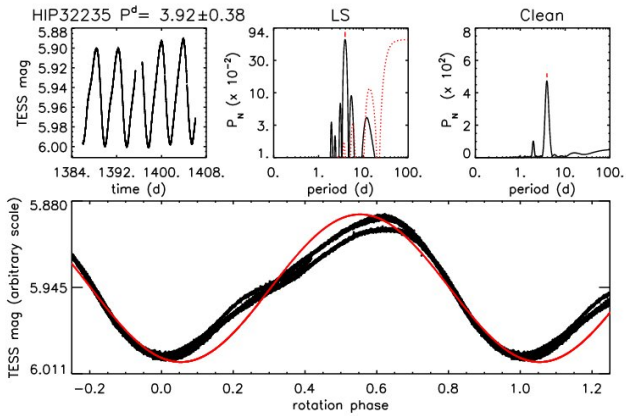

Fig. A.37. Photometric time sequence and periodogram for HIP 32235.

HIP 32235. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.37).

HD 51797 = TYC 8118-0871-1. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.38).

HIP 33737 = HD 55279. Originally classified as a member of Tuc-Hor, the updated analysis indicates membership in the Carina association. The photometric rotation period first measured by Messina et al. (2010) is confirmed by our analysis of the TESS data (Fig. A.39).

2MASS 07065772-5 353 463. We measured for the first time the rotation period from the TESS photometric time series (Fig. A.40). Numerous flare events are detected in the TESS time series.

BD+20 1790 = TYC 1355-214-1 = V429 Gem. Member of AB Dor MG, with a very high activity level. The presence of a previously claimed hot Jupiter has been refuted by Carleo et al. (2018).

TYC 8128-1946-1 = CD-48 2972. Star with a wide companion HIP 36312 = HD 59659 (which is also in the SHINE sample but not observed within the date defining the targets of the present paper). It was originally identified as an