MEGASTAR: The MEGARA-GTC stellar spectral library.

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Abstract

We are observing a large sample of stars with MEGARA on GTC through a filler-type OpenTime program obtained in 7 semesters up to now. We summarize our advances done with MEGASTAR, the stellar spectral library we are observing with MEGARA at R=20000 in two setups HR-R around Hα and HR-I around CaT. We described our project in García Vargas et al. (2020, MNRAS, 493, 871). We published our first data release in Carrasco et al. (2021, MNRAS, 501, 3568). In our third piece of work (Mollá et al. 2022, MNRAS, submitted) we have determined the stellar parameters (effective temperature, surface gravity and metallicity) of a subsample of the DR1 stars with spectral types later than B2, and we have measured some stellar indices, also giving the first set of MegaPopStar evolutionary synthesis models. Next papers will be devoted to the second data release and to the physical parameters determination of the hot stars.

My poster is available at https://zenodo.org/record/6991175#.Y1bgxoJBxmE