



The fingerprint of a star: 70 Vir

70 Virginis = HD 117176 is a slightly evolved G4 star classified with a luminosity class V-IV. It is unusually bright for its spectral type and likely just starting to evolve into the subgiant phase. In 1996, 70 Virginis was discovered to have an extrasolar planet in orbit around it. There is also a dust disc with a maximum temperature of 153 K located at a minimum distance of 3.4 AU from the star. This poster shows the optical spectrum of 70 Vir obtained with the Potsdam Echelle Polarimetric and Spectroscopic Instrument (PEPSI) of the Large Binocular Telescope (LBT). It plots

the normalized intensity as a function of wavelength λ in Angströms ($1\text{\AA}=0.1\text{nm}$) from the top left corner to the bottom right corner. The PEPSI spectrum covers the wavelengths between 3820 Å (top left) and 9130 Å (bottom right) with an average spectral resolution of $R=\lambda/\Delta\lambda=220,000$ or approximately 1.4 km/s. Its average dispersion is 0.012 Å/pixel. Integration time with the LBT was 5 min, and 1 hr with the VATT, and consists of 2-4 exposures in all six cross dispersers. The signal-to-noise ratio (S/N) of the spectrum peaks at 1340:1 at 8250 Å and has a low of

250:1 near the blue cutoff. The exposure was obtained on May 25, 2015. A subset of spectral absorption lines is identified in the graphics and marked with dashes beneath the spectrum. The annotation indicates the chemical element (e.g., Fe for iron), the ionization state (I for a neutral line, II for an ionized line), and the wavelength in Angström. The original spectrum has been published in *Astronomy & Astrophysics* (Strassmeier, K. G., Ilyin, I., & Weber, M. 2018, A&A, **612**, A45; see <https://pepsi.aip.de/>).

