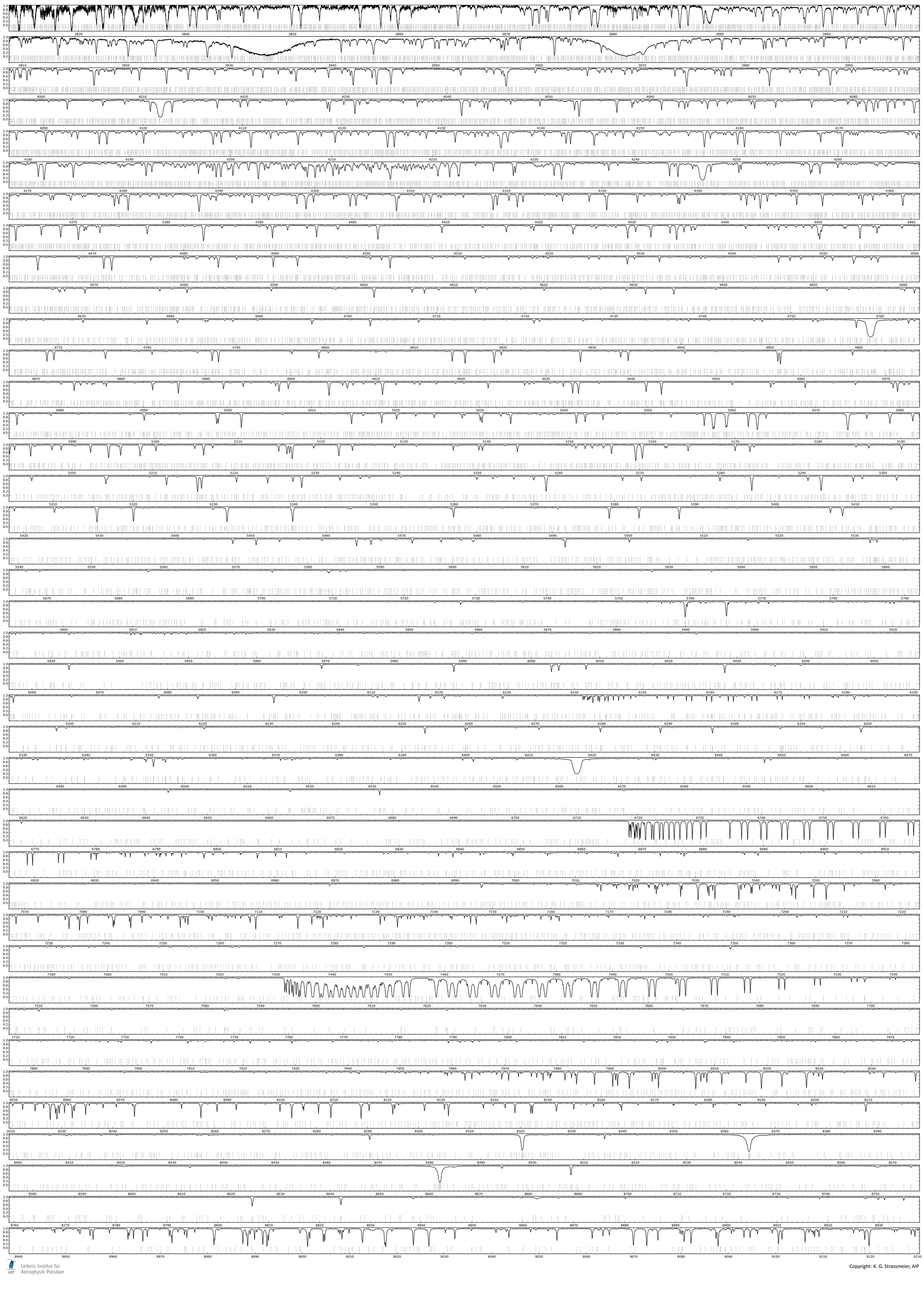
The fingerprint of a star: HD 122563

HD 122563 = BD+10°2617 is an F8 subgiant reference star from the *Gaia* benchmark list. Its effective temperature of ≈4600 K, if correct, is not in agreement with this classification while the star is also metal poor. This poster shows the optical spectrum of HD 122563 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 (1Å =0.1nm) 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 consists of two exposures except in the CD-VI cross dispersers where four spectra were taken. The signal-to-noise ratio (S/N) of the spectrum peaks at 770:1 at 5800 Å and has a low of 100:1 near the blue cutoff. The exposure was obtained on April 10, 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/).



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