

# Constraint on cosmological variation of the proton-to-electron mass ratio from two independent telescopes

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## Additional material to this paper

In the following pages the full spectrum as observed toward the J2123-005 quasar system with UVES-VLT is presented. The observed spectrum is shown in black, the result of the fitted spectrum in green. The upper trace (in dark blue) shows residuals in the fit regions; these parts of the spectrum were included in the fitting routine; the light horizontal lines mark the  $\pm 1\sigma$  levels. The green ticks marks give the positions of the H<sub>2</sub> and HD velocity components (note that on this scale not all 5 VCs of the final fit are visible). Blue tick marks indicate Lyman- $\alpha$  forest lines. Red tick marks indicate Fe II lines, while black tick marks indicate C IV lines, including their velocity structures. The regions for  $\lambda > 3415 \text{ \AA}$  were included in the fit for the purpose of constraining the metal absorption (Fe II and C IV). Line identifications are shown at the bottom for the H<sub>2</sub> and HD lines, as well as for the metal lines. Regions where a dashed horizontal (red) line is shown indicate adjustment of the continuum or the zero level in the fit.



















