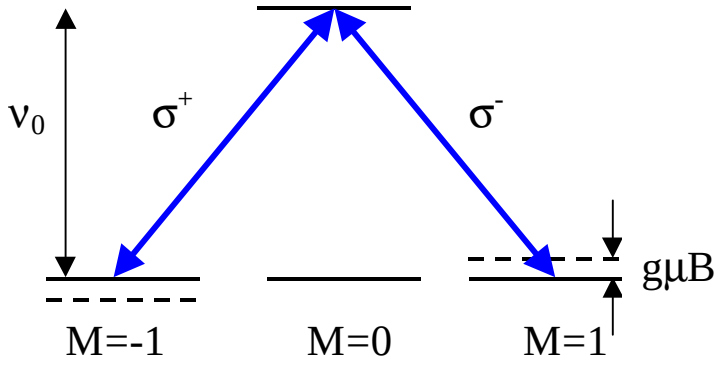

Fig. 1. An F=1 → F'=0 atomic transition. In the presence of a longitudinal magnetic field, the Zeeman sublevels of the ground state are shifted in energy by gμB·M. This leads to a difference in resonance frequencies for right- and left-circularly polarized light ($\sigma^{\pm}$).

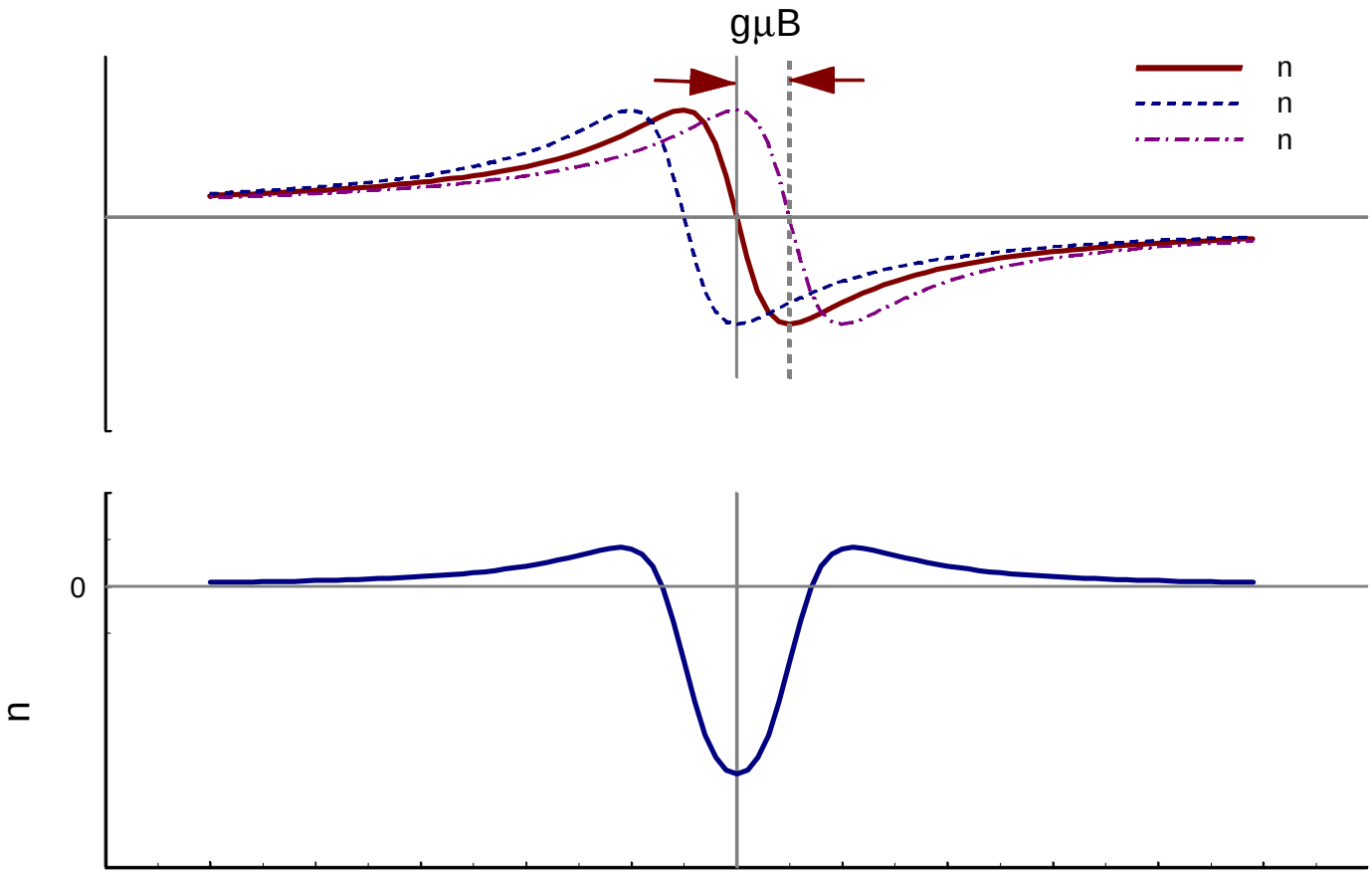

Fig. 2. The dependence of the refractive index on light frequency detuningΔ in the absence (n) and in the presence ($n_{\pm}$) of a magnetic field. Shown is the case of $g\mu B = \Gamma$ and a Lorentzian model for line broadening. Gaussian and Voigt models (see e.g. W. Demtröder. Laser Spectroscopy. Springer, 1996.), which are most appropriate in the case of a Doppler-broadened line, lead to qualitatively similar pictures. The lower curve shows the difference in refractive index for the two circular polarization components. This is the characteristic spectral profile of Macaluso-Corbino optical rotation.