# Magnetic modeling

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**Abstract.** The magnetic surface field of a star is constructed by a straight-forward calculation underlying a model of spatially distributed magnetic charges with their superposed potentials, for which the theoretic foundation is given. The calculation is realized by a computer programme, which fits the calculated phase curves to the observed ones by variation of parameters and iterative least squares optimization. All observational magnetic data compiled up to now may be used. The magnetic map of the star is drawn on the basis of the model by a few parameters. From the map the phase curves and the profiles of the spectral lines are derived.

Key **words:** Stars; magnetic fields