

## The eigenvalue method for calibration of Mueller-polarimeter on LCD cells

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In this work the eigenvalue method for calibration of Mueller-polarimeters is described. This method is completely mathematical and abstracted from the physical nature of the polarization state generator (PSG) and the polarimeter (analyser, PSA). In this method, the PSG and the polarimeter are represented by their hardware  $4 \times 4$  matrices  $W$  and  $A$ , respectively, and their 32 coefficients are determined from three or four measurements performed on reference samples. Those references are smooth isotropic samples and perfect linear polarizers. Their optical characteristics are unambiguously determined during the calibration from the eigenvalues of the measured matrices.

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