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【724】Model based pixel crosstalk compensation in LCoS SLMs

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Liquid crystal based spatial light modulators (LCoS SLMs) are widely used due to their ability to continuously modulate the phase of a light field. A common problem in these devices is the pixel crosstalk, which causes the response of the SLM to deviate from the ideal behaviour. We use detailed numerical simulations of the SLM to reproduce the measured response and model the crosstalk effect. From this rigorous simulations we develop and validate a simplified model which enables a much faster evaluation of the SLM response. We then utilize this simplified model together with numerical optimization algorithms for crosstalk compensation.

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