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Defocus asymmetry in projection printing

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ABSTRACT

The effect of defocus asymmetry in photolithography has been modeled by modifying FAIM to incorporate the phases of all partial fields emanating from the illuminator. Each partial field exposes the resist independently, and the integration over the illuminator takes place inside the resist, thus accounting for the correct physics of partially coherent light projection. Linewidth versus defocus is obtained as an asymmetric function around zero defocus as found experimentally.