



1. Title:	Multilayer coatings development for non-radial gradients on aspherical optics
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3. Abstract body:

We will present our latest development on Mo/Si multilayer coatings. Specifically, we have calibrated and deposited coatings on a set of EUVL optics, the most challenging being an asphere over 200mm diameter, for which the gradient is non-radial. Deposition simulation code was developed and used before and during calibration to improve the coating thickness distribution variation over the clear-aperture. This deposition simulation incorporates the physical geometry and movement of the the optics and chamber to provide information on relative deposition rates. This information improves the calibration process, particularly in determining the shape of shadow masks and velocity profiles. There are additional advantages to such simulation, primarily in assessing the ultimate capability of a particular setup and choosing the optimum setup from which to begin calibration.