Wavenology Litho

Wavenology Litho is developed as a highly accurate tool to model optical diffraction in lithography. Deep ultraviolet (DUV) and extreme ultraviolet (EUV) lithography technologies are crucial to today's high-density semiconductor patterning. However, optical diffractions caused by subwavelength features and multilayer distortions caused by mask defects are challenging to model in large-scale high-resolution lithography models. To simulate the influence of the defected nanoscale structures with high accuracy and efficiency lithography, we have developed a spectral element method combined with a surface integral equation solver, which can be order of magnitude faster than the traditional finite element method.