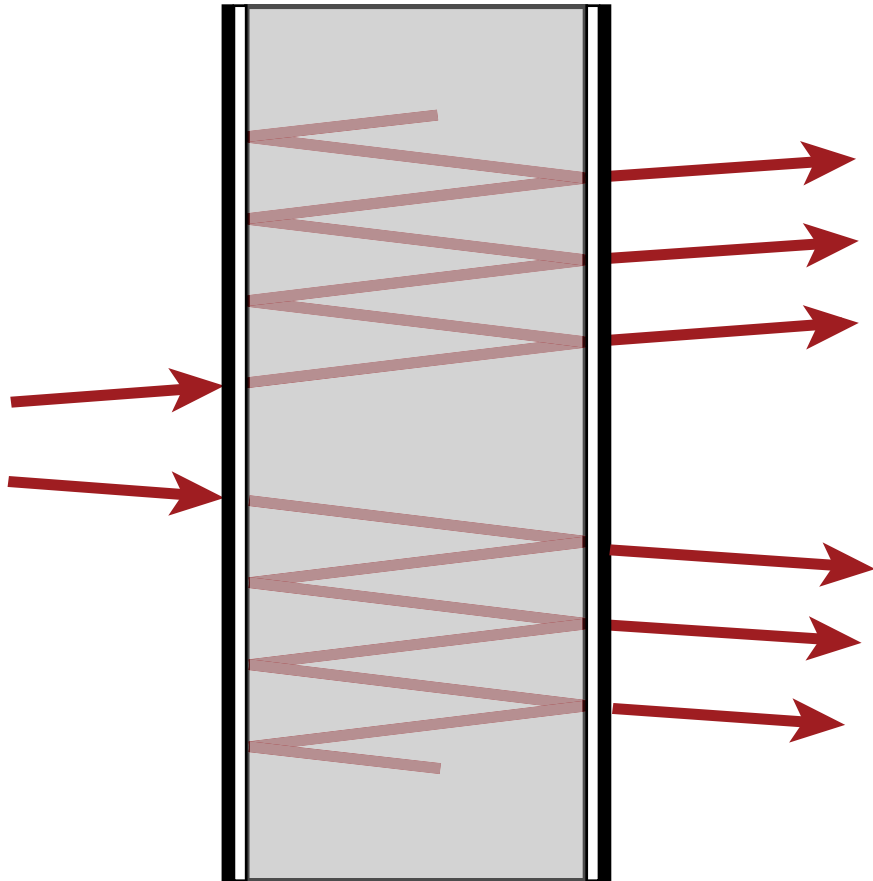


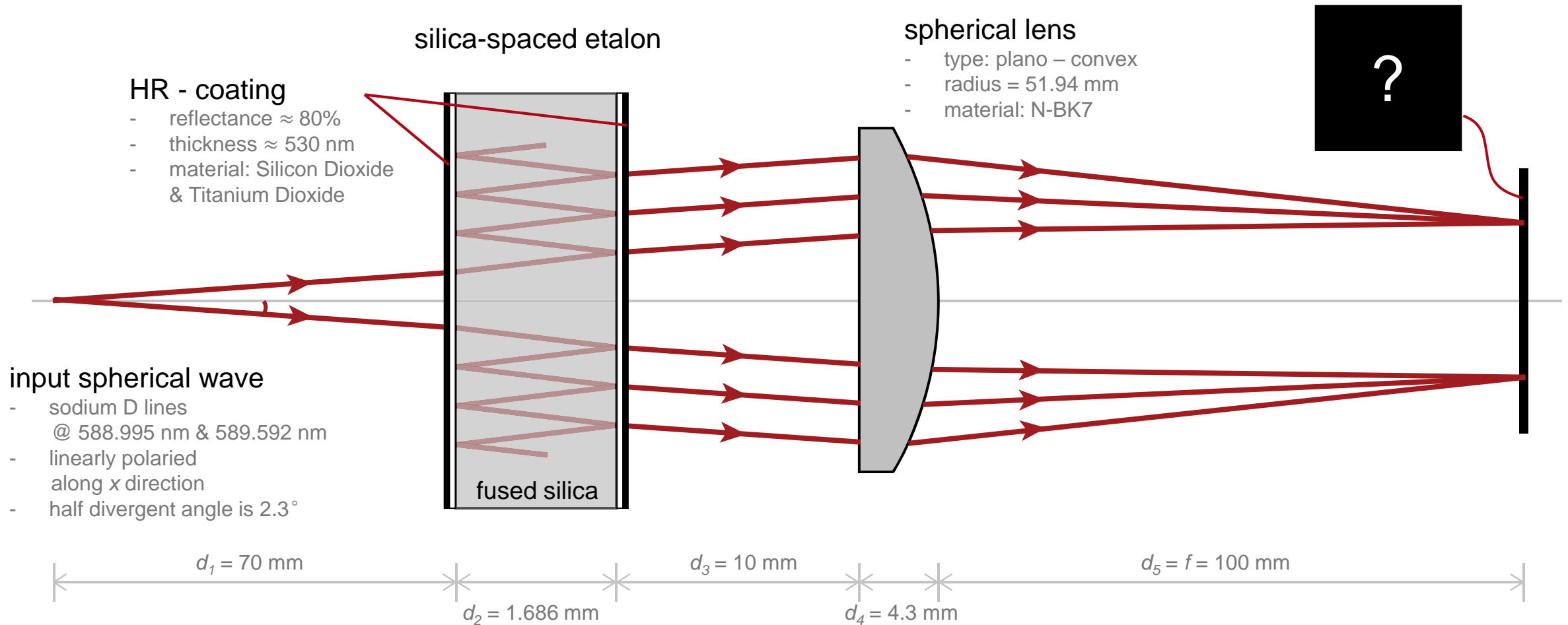
Examination of Sodium D Lines with Etalon

Abstract

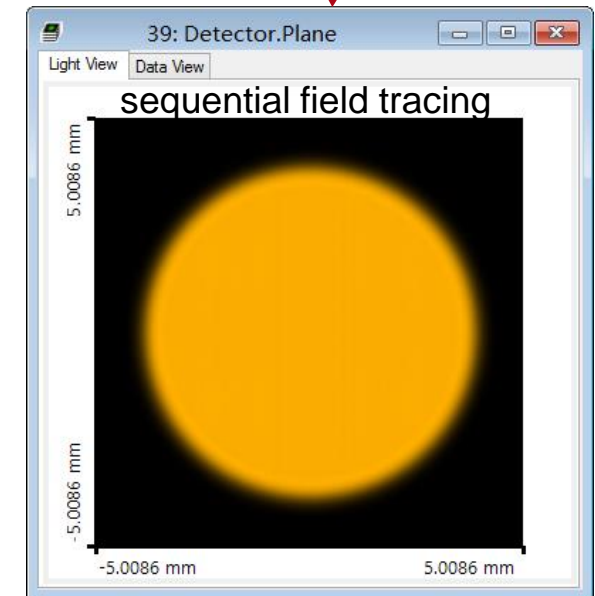
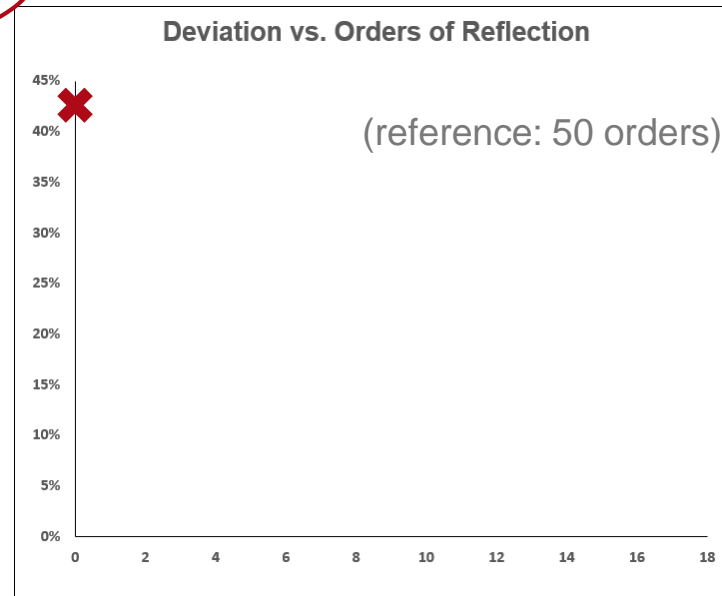
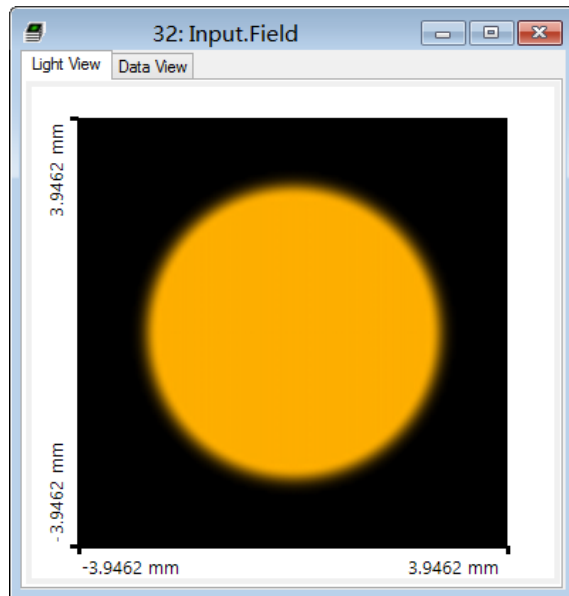
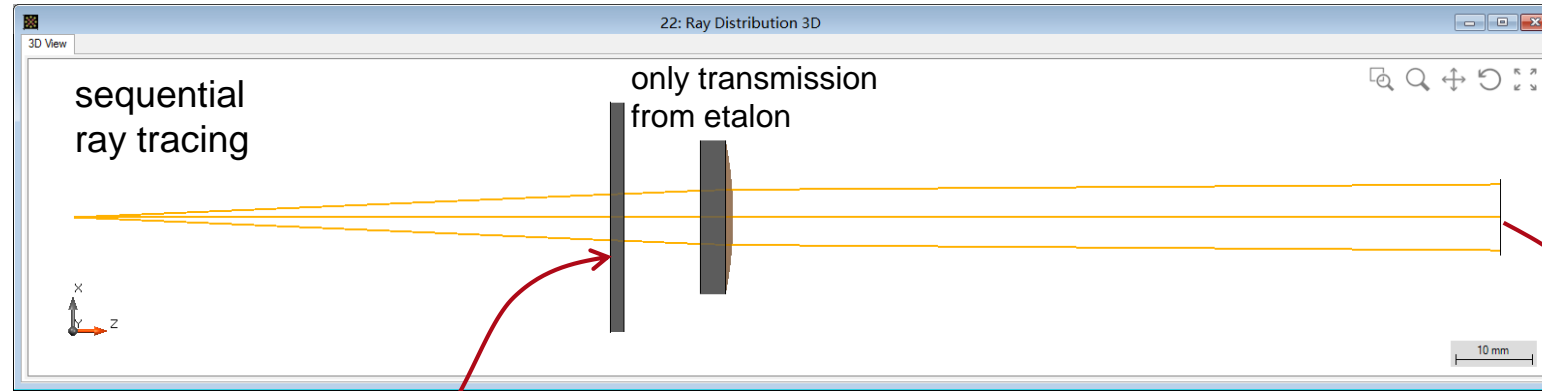


Fabry-Pérot etalons are widely used in laser resonator and spectroscopy for wavelength selection. Typically they are composed of two highly reflecting surfaces with air or glass in between. In this example, an optical metrology system with a silica spaced etalon is set up to measure the sodium D lines in VirtualLab Fusion. With the non-sequential field tracing technique, the interference due to multiple reflections in the etalon is fully taken into account, and the influence of the number of multiple back reflections on the convergence of the result is investigated.

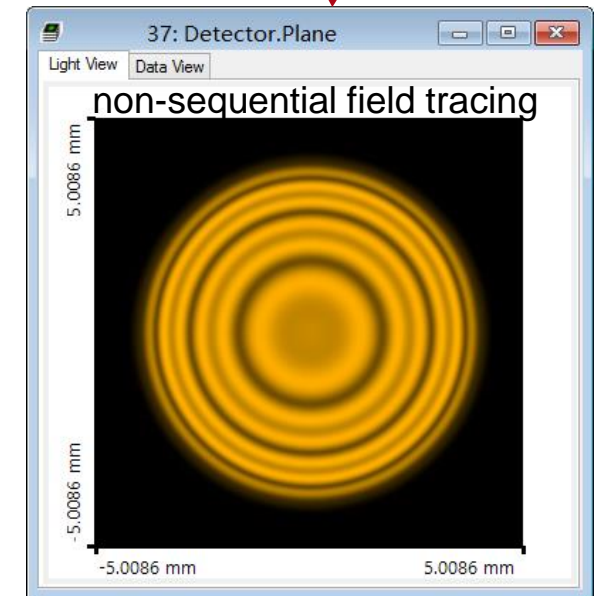
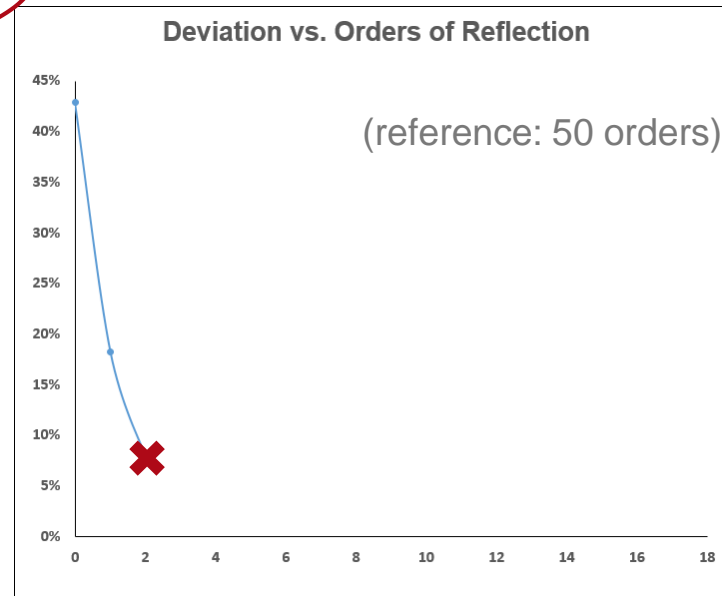
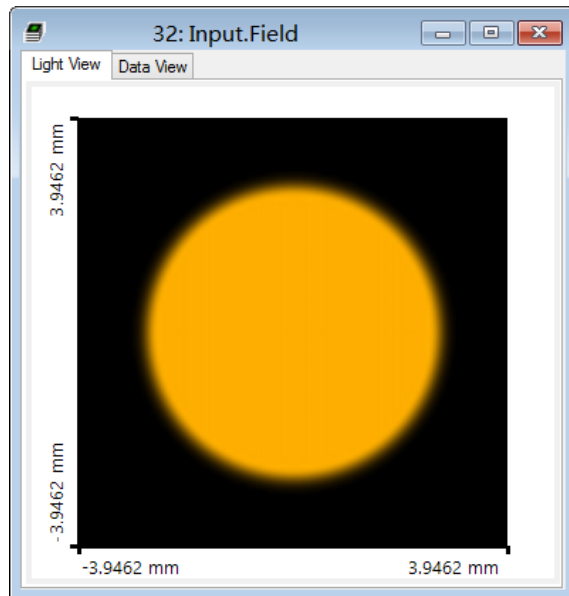
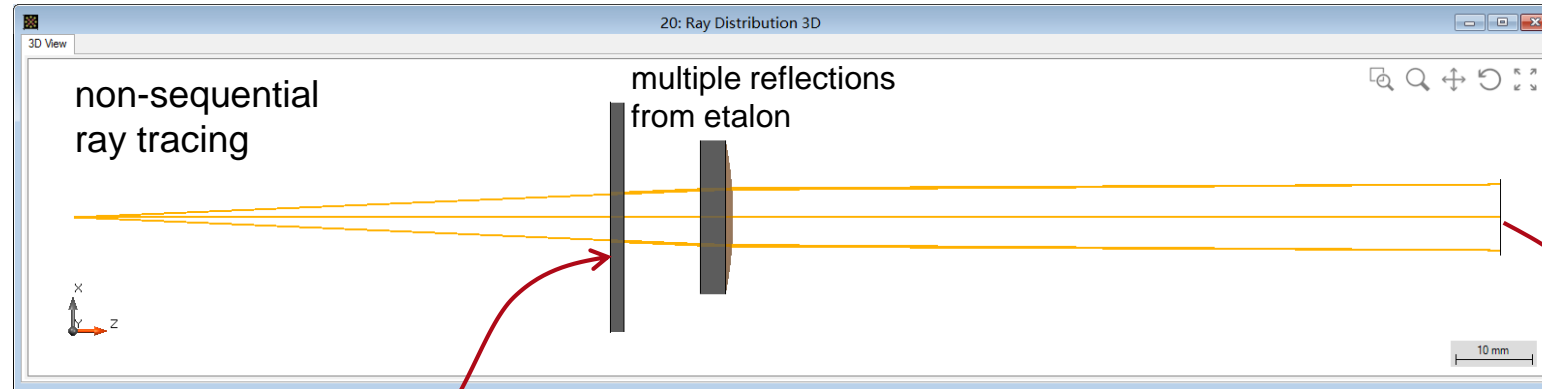
Modeling Task



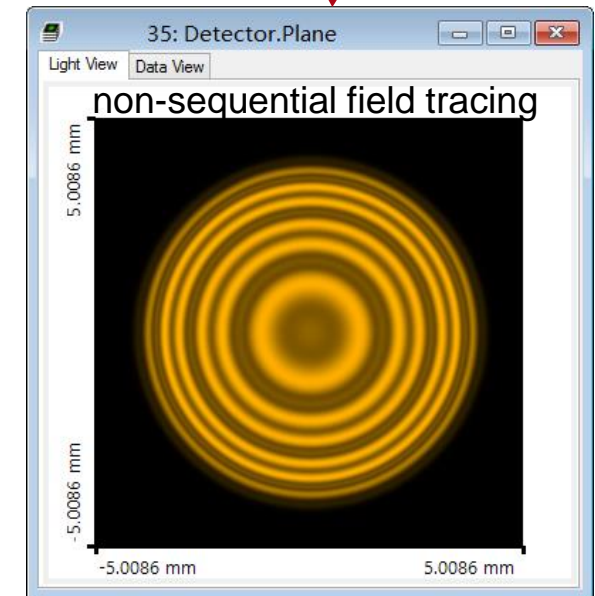
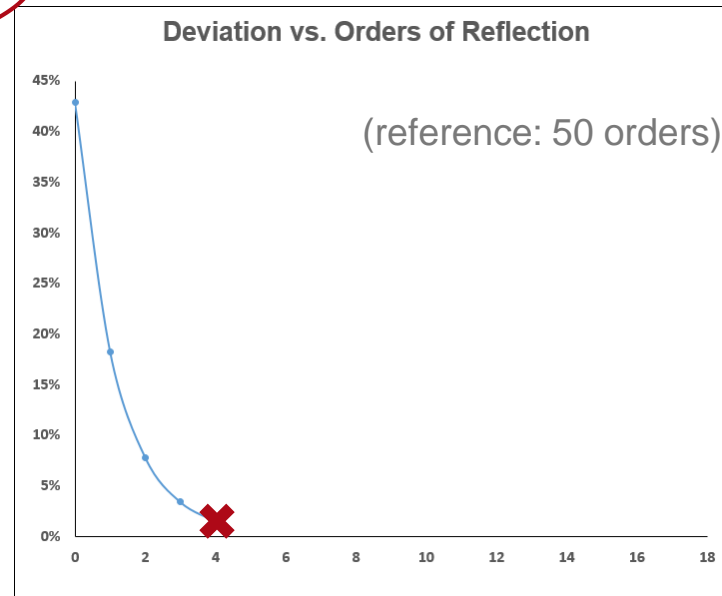
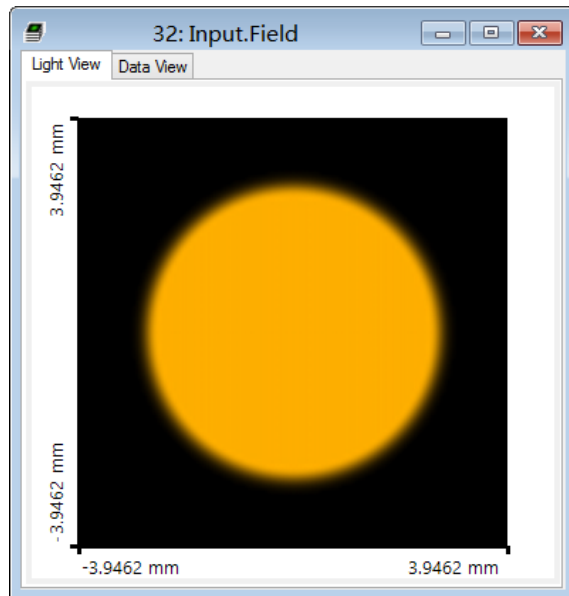
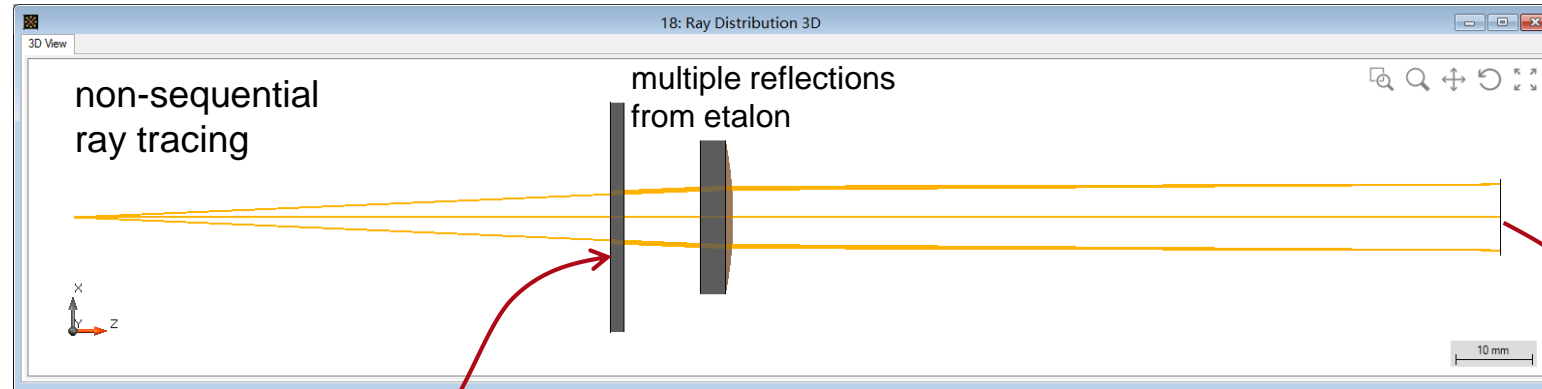
Result: Only Transmitted Field



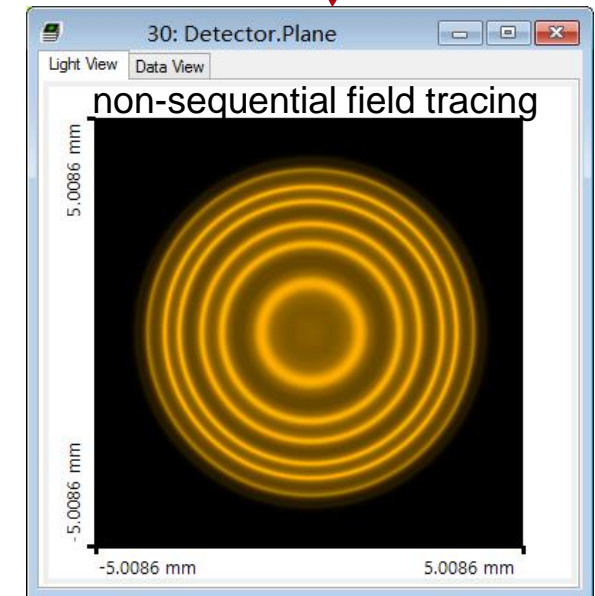
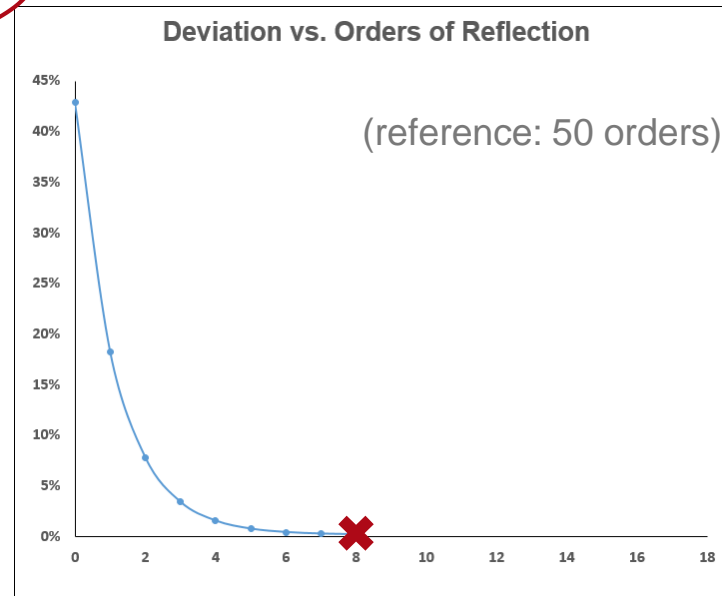
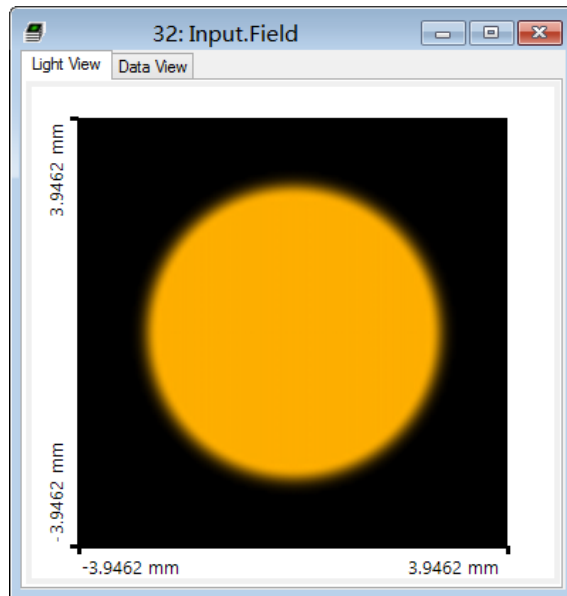
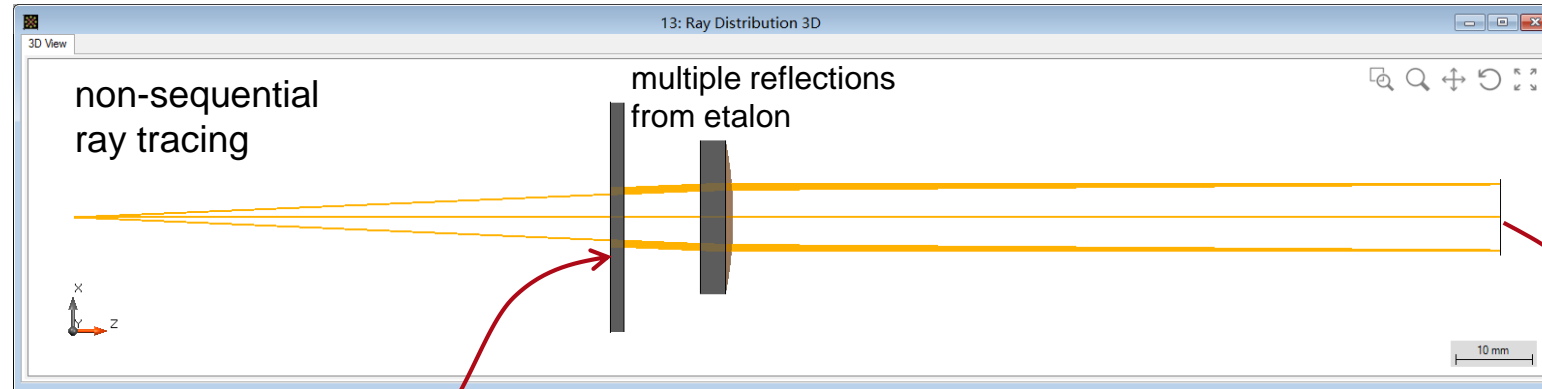
Result: Transmitted Field + 2 Back Reflections



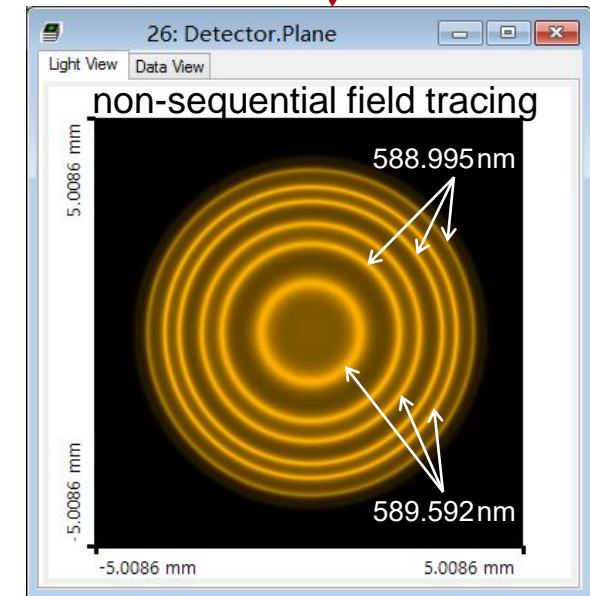
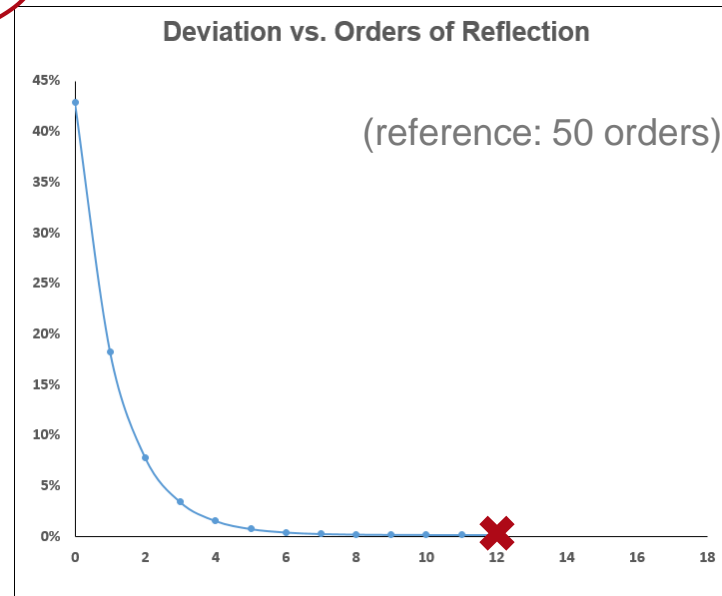
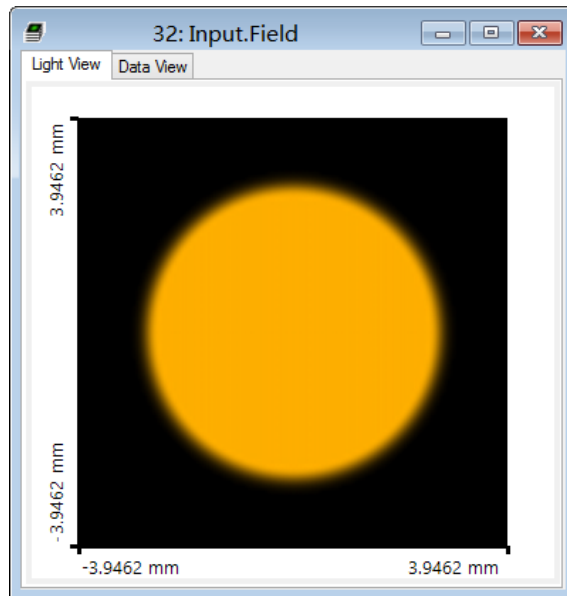
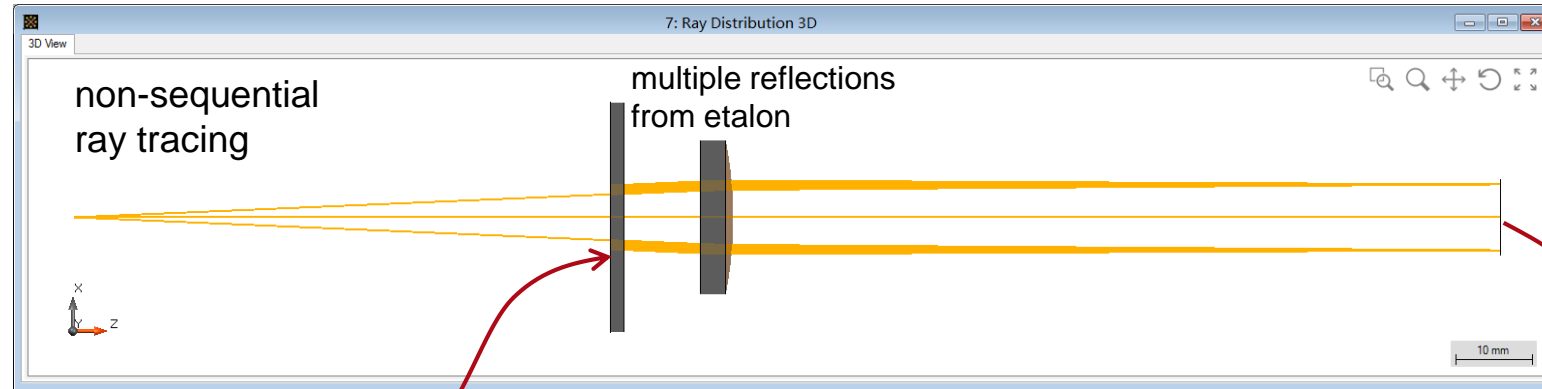
Result: Transmitted Field + 4 Back Reflections



Result: Transmitted Field + 8 Back Reflections



Result: Transmitted Field + 12 Back Reflections



Document Information

title	Examination of Sodium D Lines with Etalon
version	1.0
VL version used for simulations	7.3.1.5 (Non-sequential Extension)
category	Application Use Case
