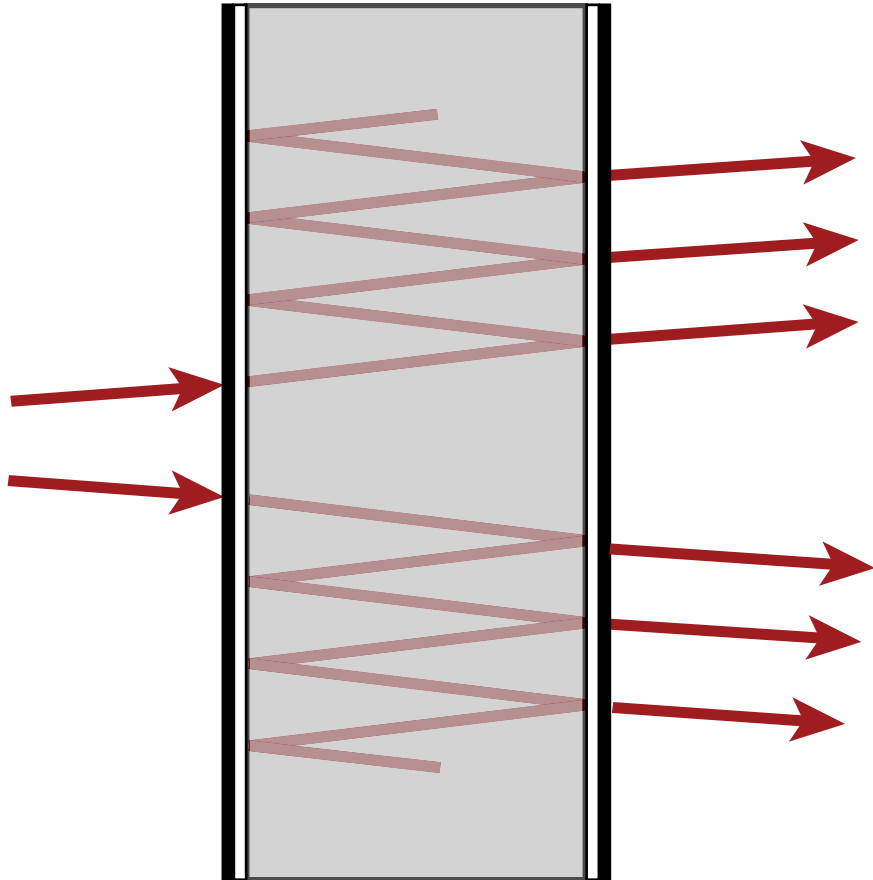


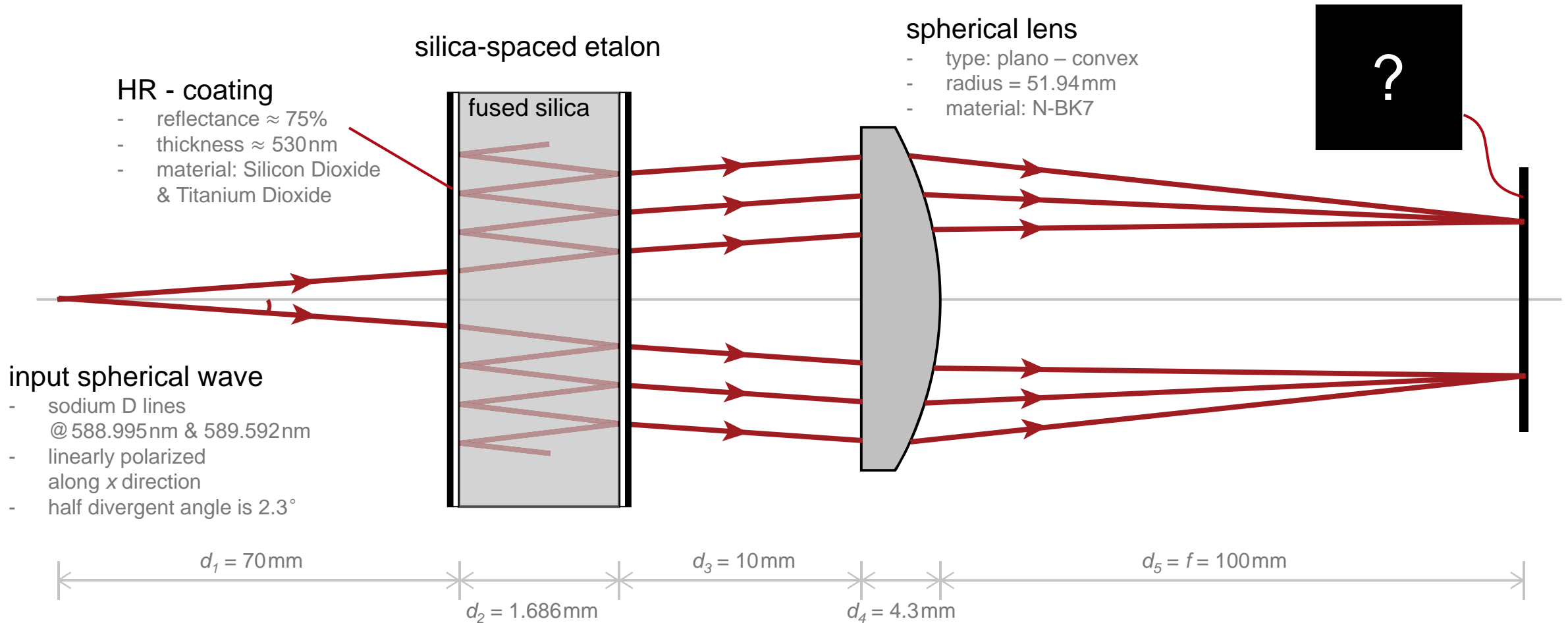
Examination of Sodium D Lines with Etalon

Abstract

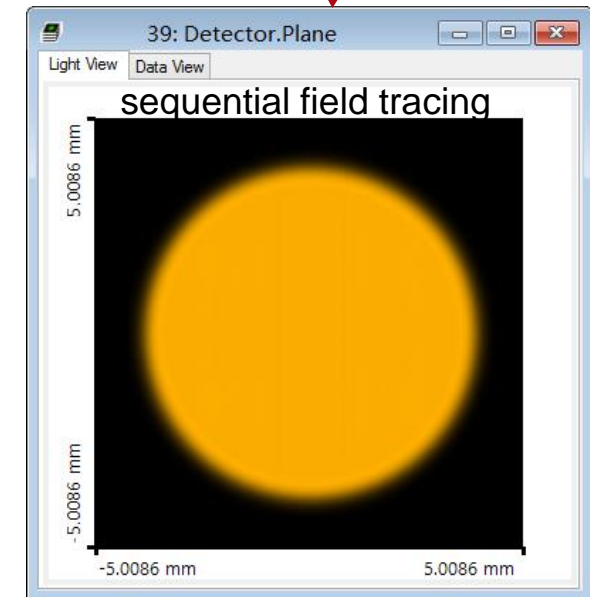
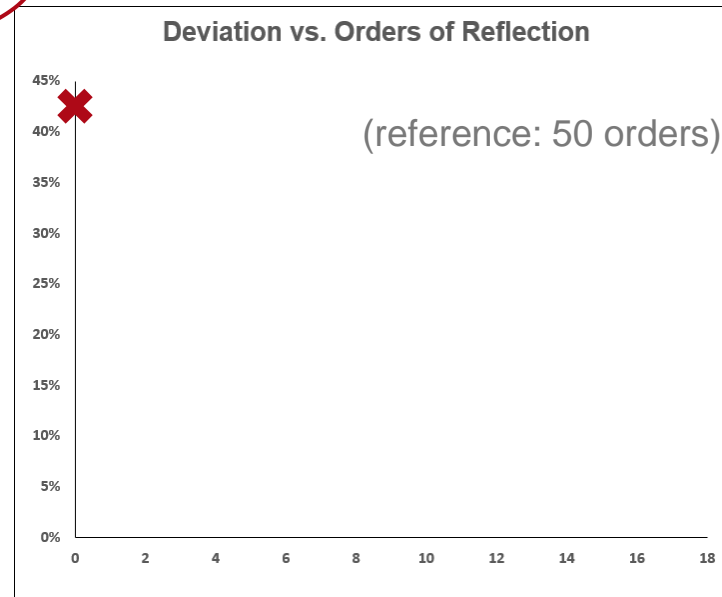
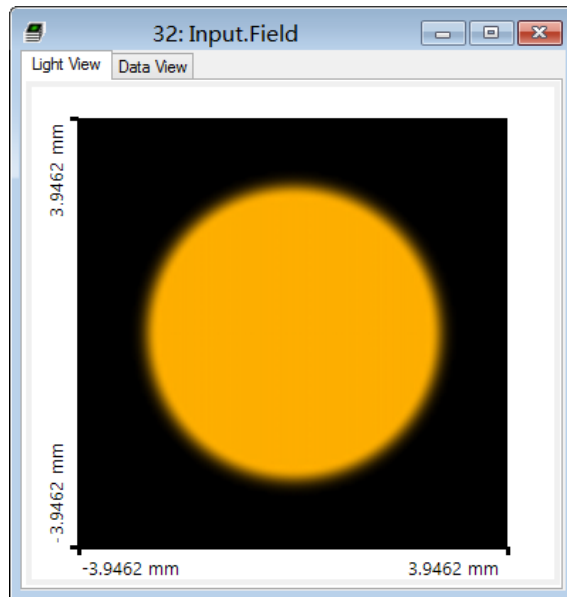
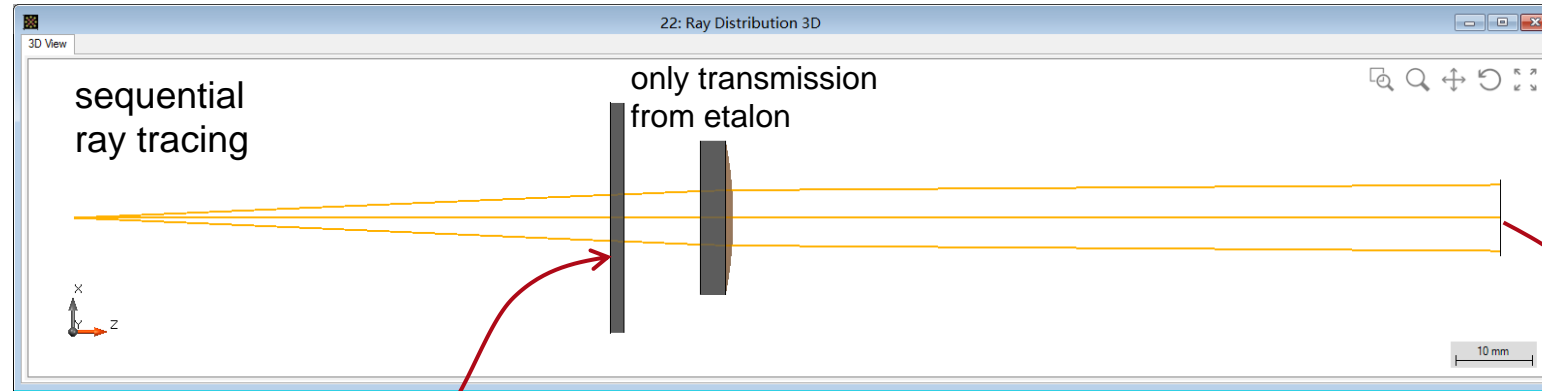


Fabry-Pérot etalons are widely used in laser resonator and spectroscopy for wavelength selection. Typically it is composed of two highly reflecting surfaces with air or glass in between. In this example, we build up an optical metrology system with a silica-spaced etalon to measure the sodium D lines 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 multiple reflection orders on the convergence of the result is investigated.

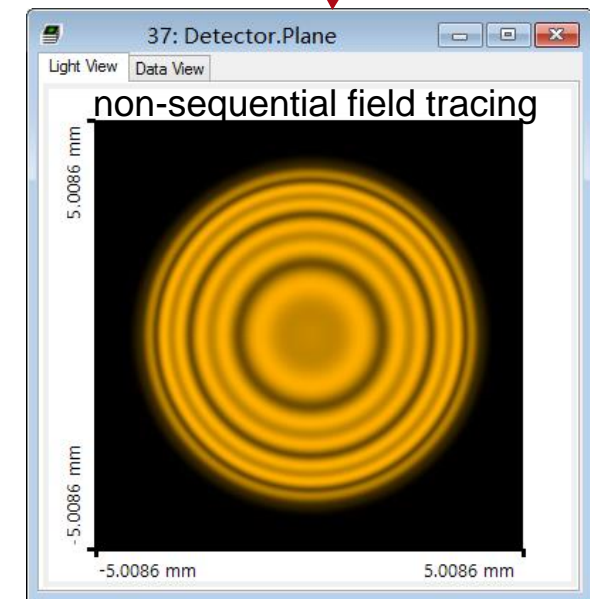
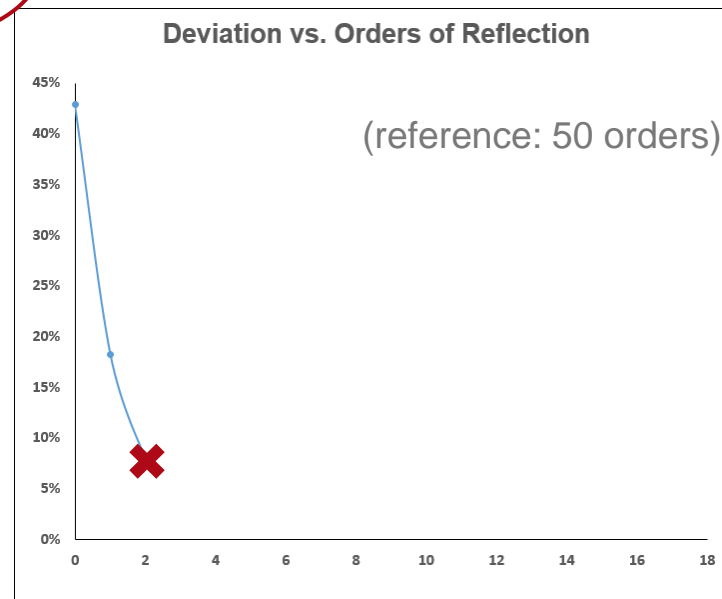
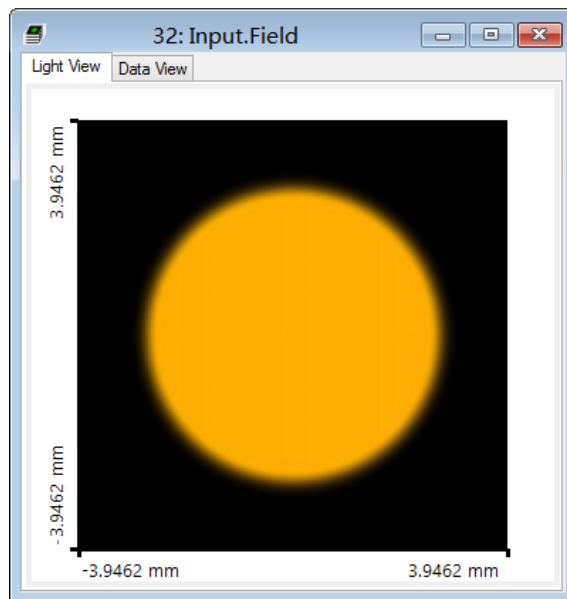
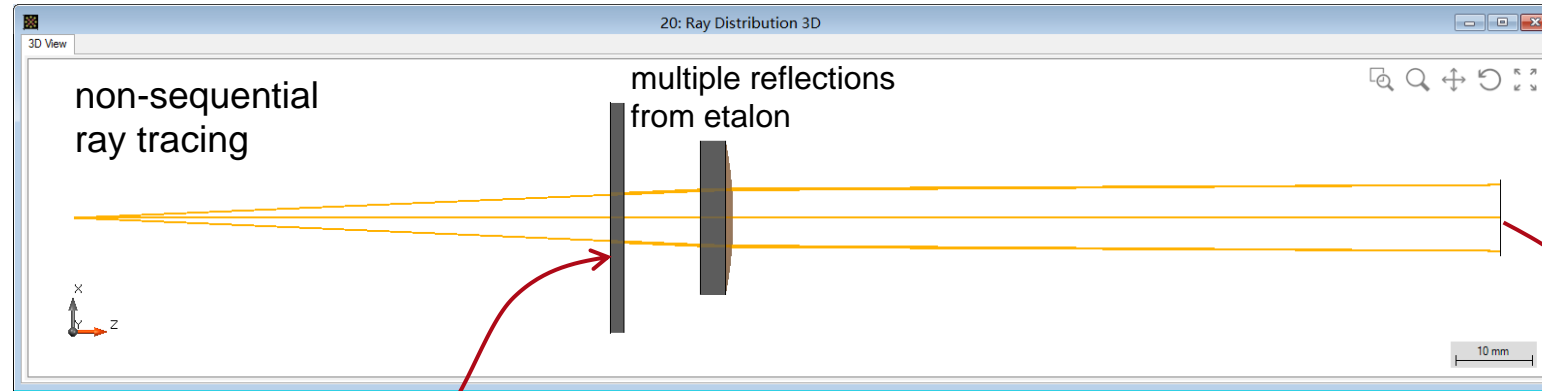
Modeling Task



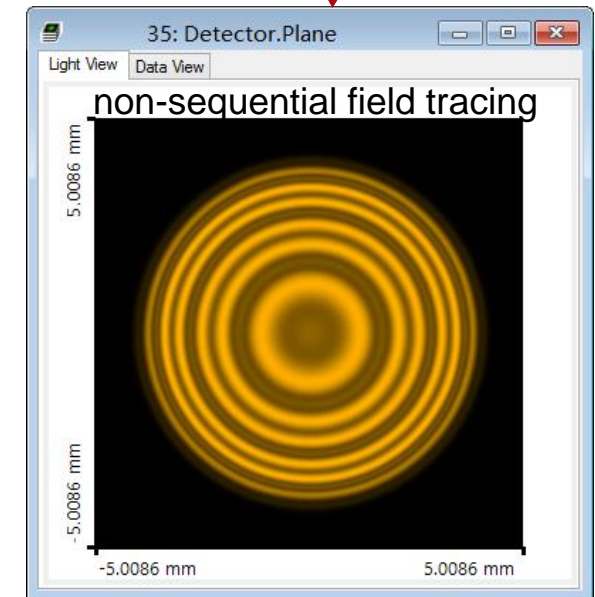
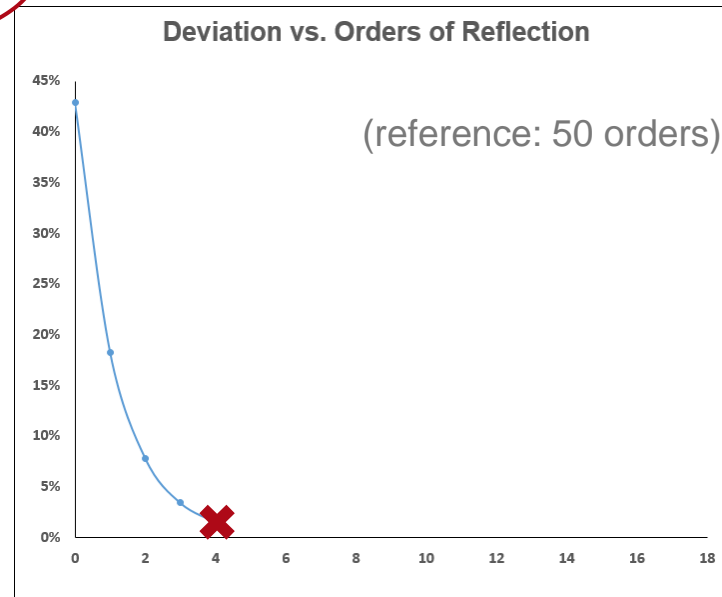
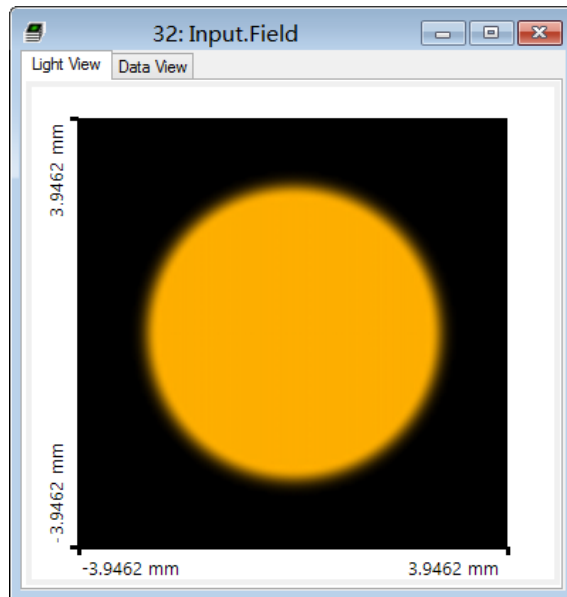
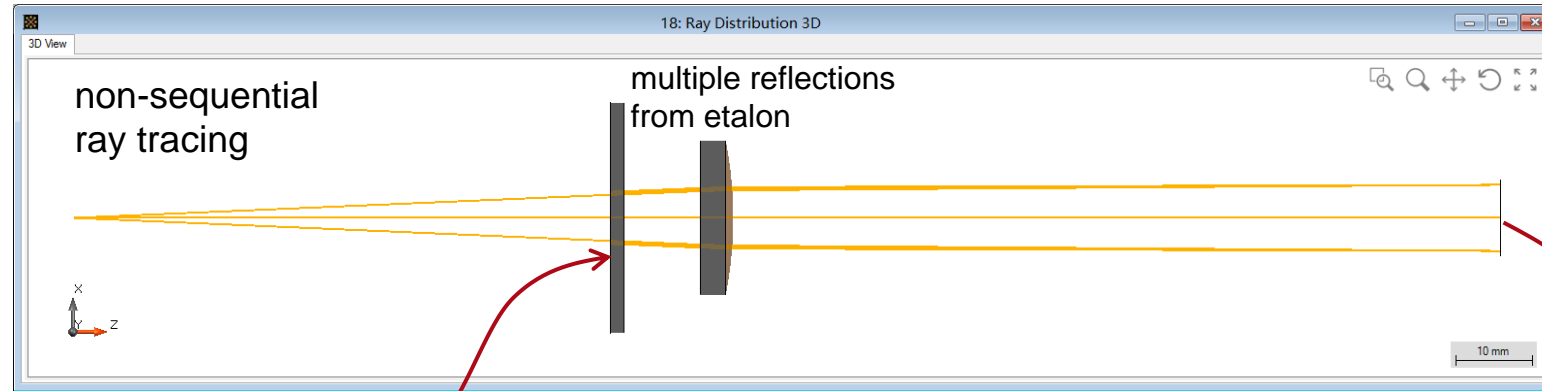
Result: only Transmitted Field



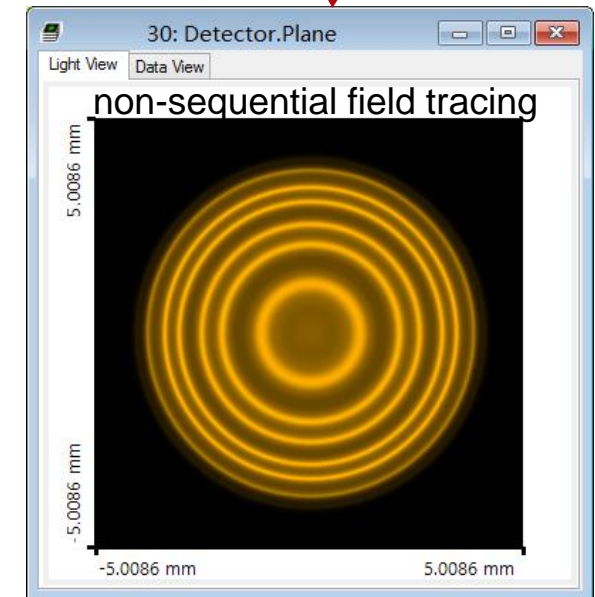
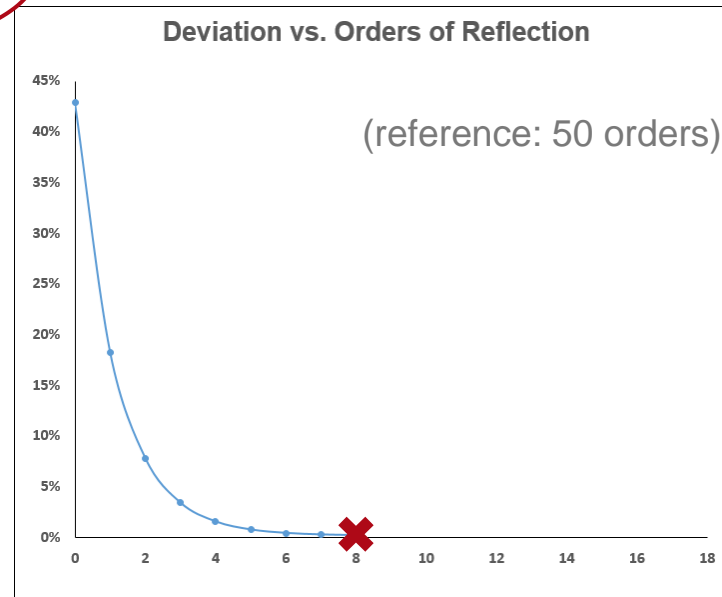
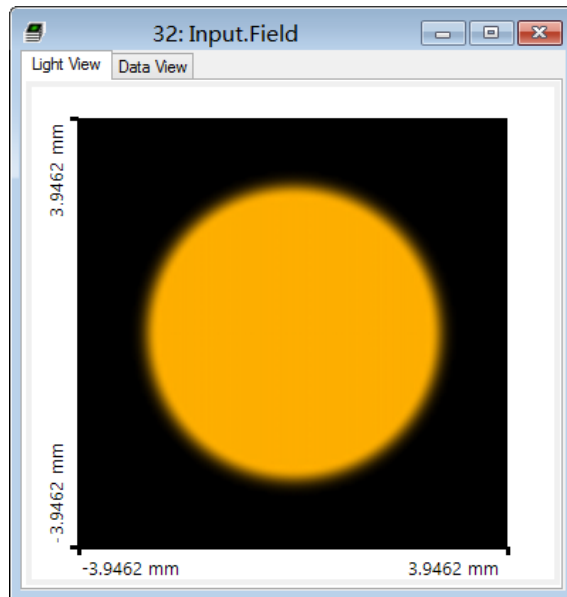
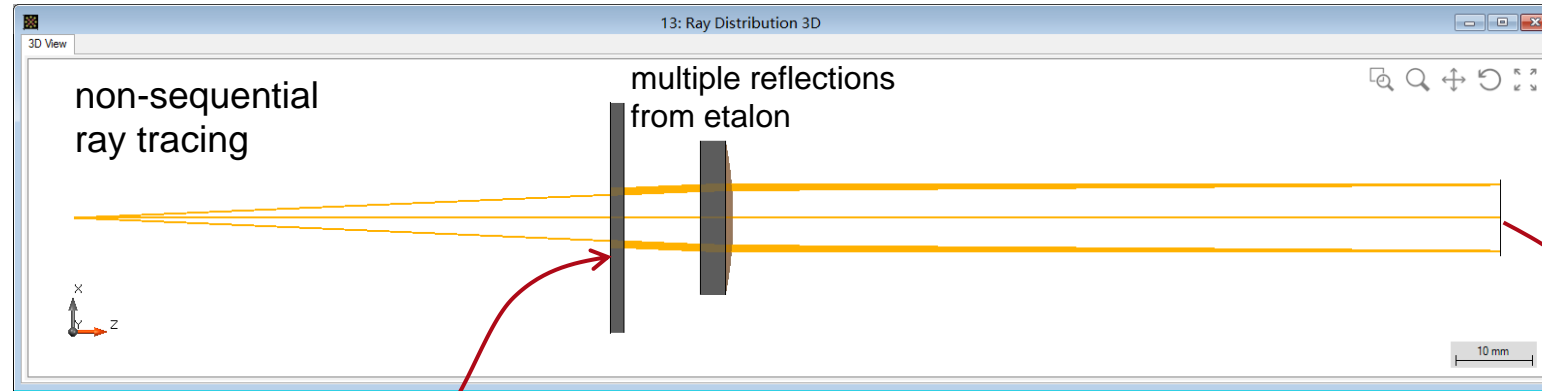
Result: Transmitted Field + 2 Orders of Reflected Field



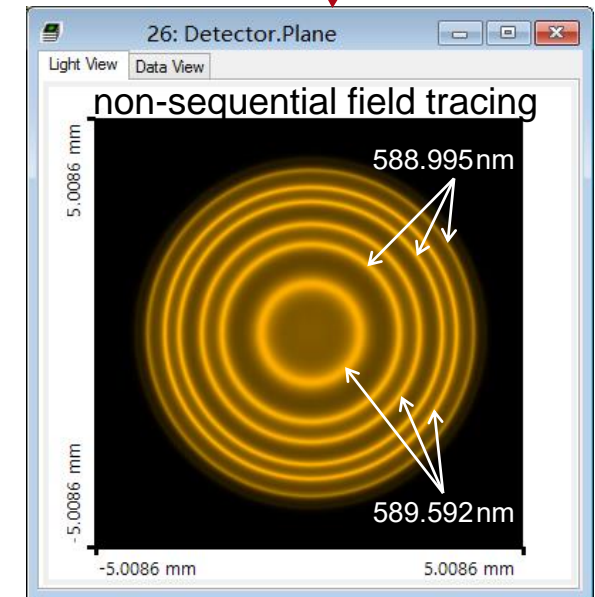
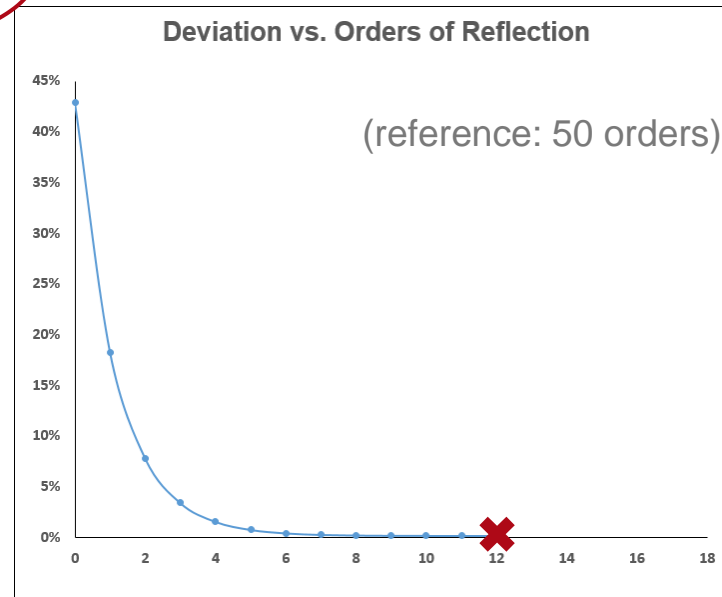
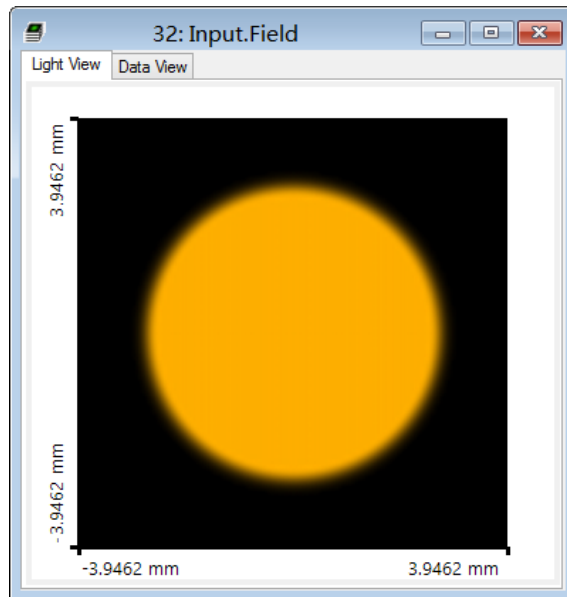
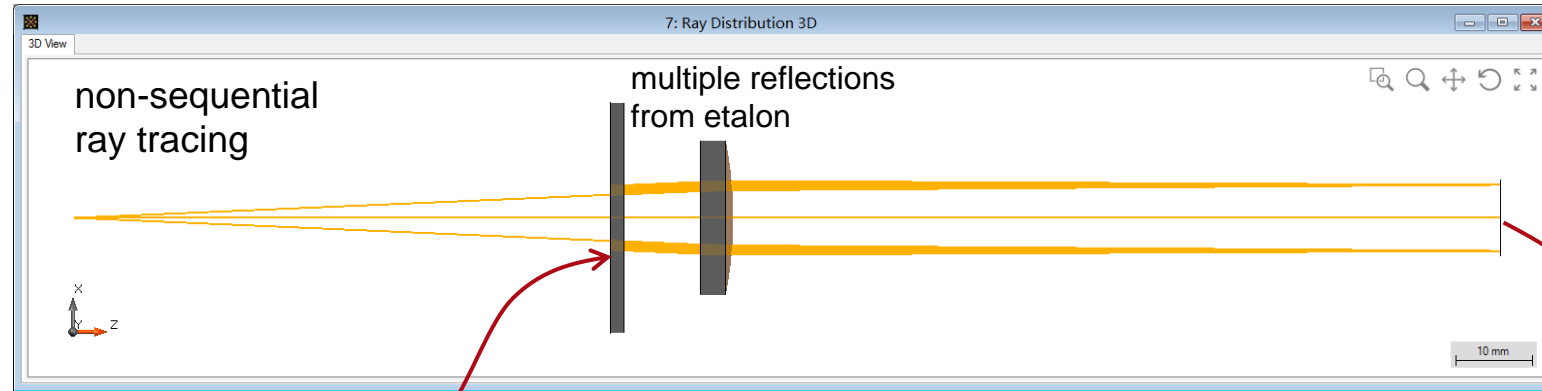
Result: Transmitted Field + 4 Orders of Reflected Field



Result: Transmitted Field + 8 Orders of Reflected Field



Result: Transmitted Field + 12 Orders of Reflected Field



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
