Homework 8 Due by 5:00 pm on Tuesday, 4 April 2017

1. Newtonian Telescope

Design a Newtonian telescope with f/#=5, focal length =1000 mm, and fields = 0°, 0.7°, and 1°. In your homework writeup, include and comment on at least plots of ray fans, spot diagrams, point spread function, and MTF plots. Be sure to identify the dominant aberration(s).

2. (582 students only) **Ritchey-Chretien Two-Mirror Telescope**

Do Geary's chapter 26 homework problem, designing an aplanatic Ritchey-Chretien 2-mirror telescope for a 1° maximum field. Keep in mind that this is a sophisticated telescope form and most consumer-grade 2-mirror telescopes would instead be a Schmidt-Cassegrain or similar.