

Aberrations

Figure Sources

1. Thor Labs (an optical hardware and optics company well known in the lab)

Good figures from their catalog. There's also discussion. Go to the bottom of:
http://www.thorlabs.com/NewGroupPage9_PF.cfm?Guide=10&Category_ID=220&ObjectGroup_ID=3208

2. Olympus America (among other things, a medical imaging firm)

I took figures from here:

<http://www.olympusmicro.com/primer/lightandcolor/opticalaberrations.html>

Part of a larger resource that appears to be vast, with great figures:

<http://www.olympusmicro.com/index.html>.

3. TVTechnology (don't know anything about this e-zine)

This is a discussion on why small cameras work so well. It's odd given how simple they are. I took some figures from this, as well.

<http://www.tvtechnology.com/article/the-small-format-hd-quality-puzzle/202348>

Axial Chromatic Aberration

Credit: (2)

There is also transverse aberration: different colors having different magnifications.

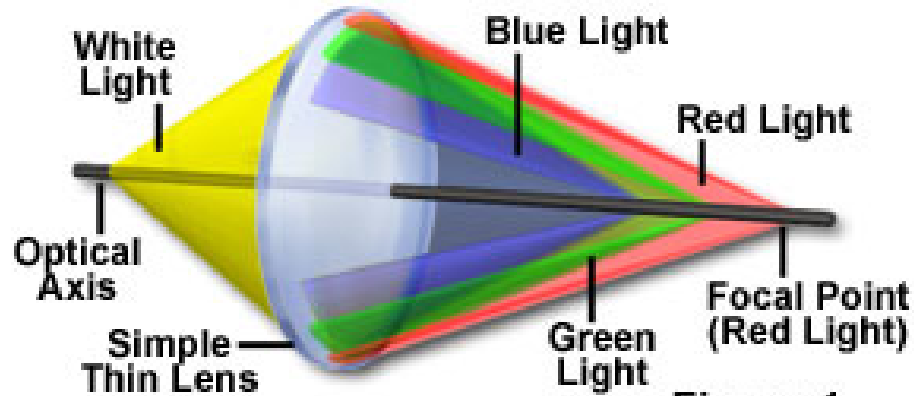


Figure 1

Axial Chromatic Aberration

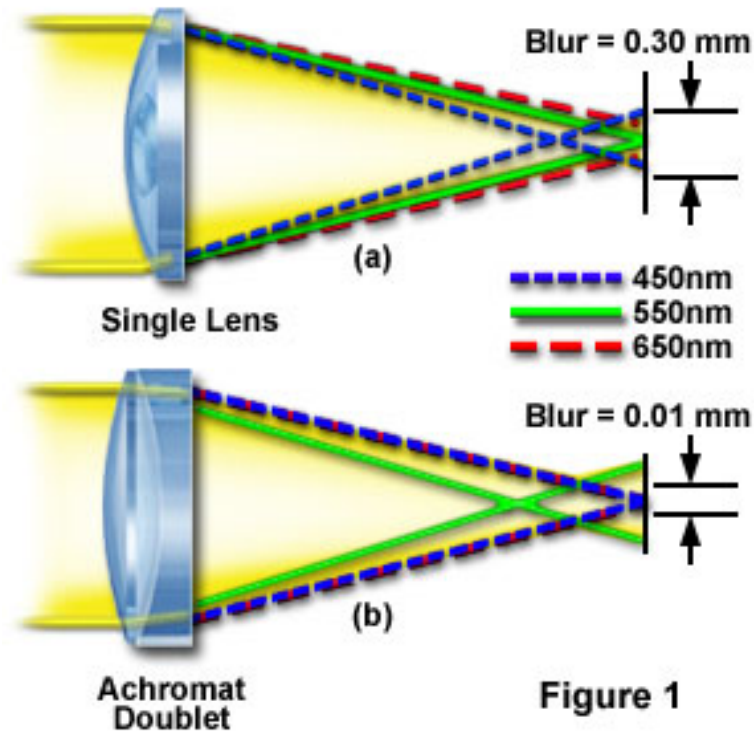
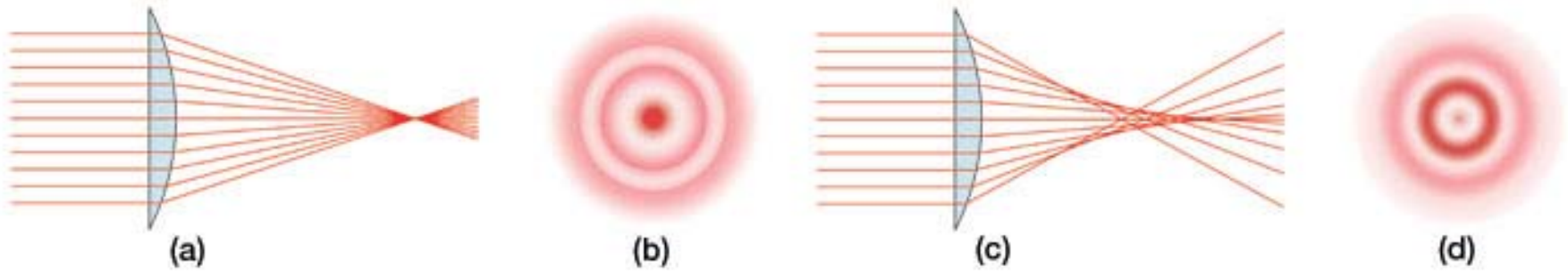


Figure 1

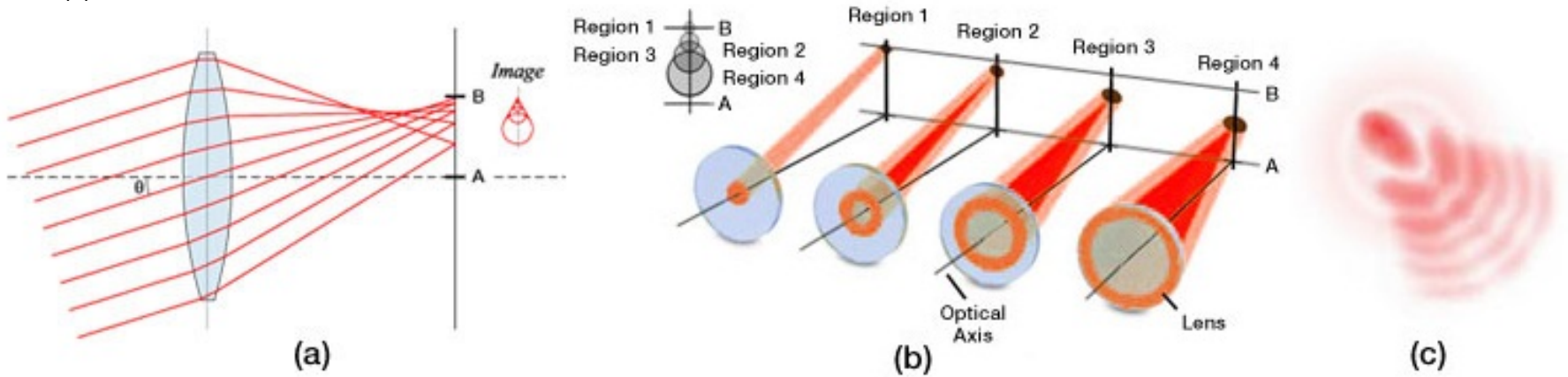
Spherical Aberration

Credit: (1)



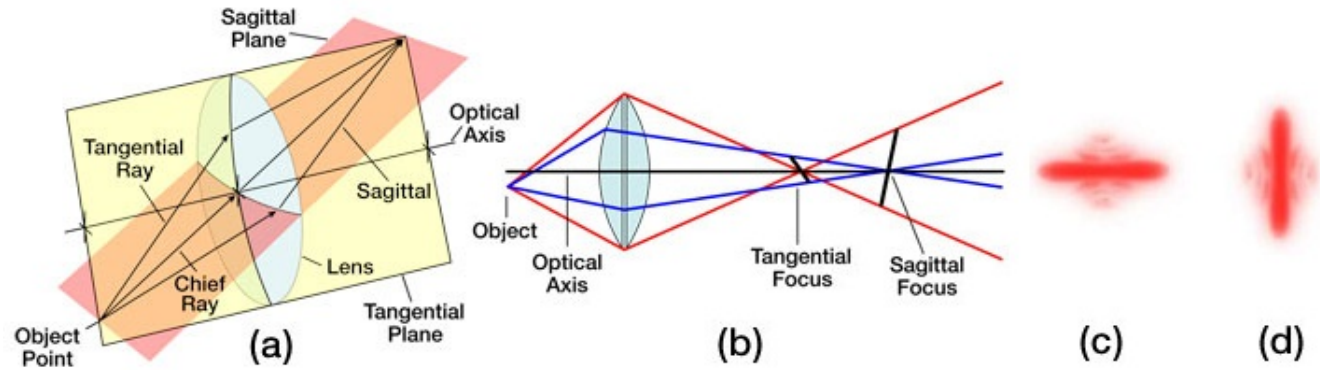
Coma

Credit: (1)

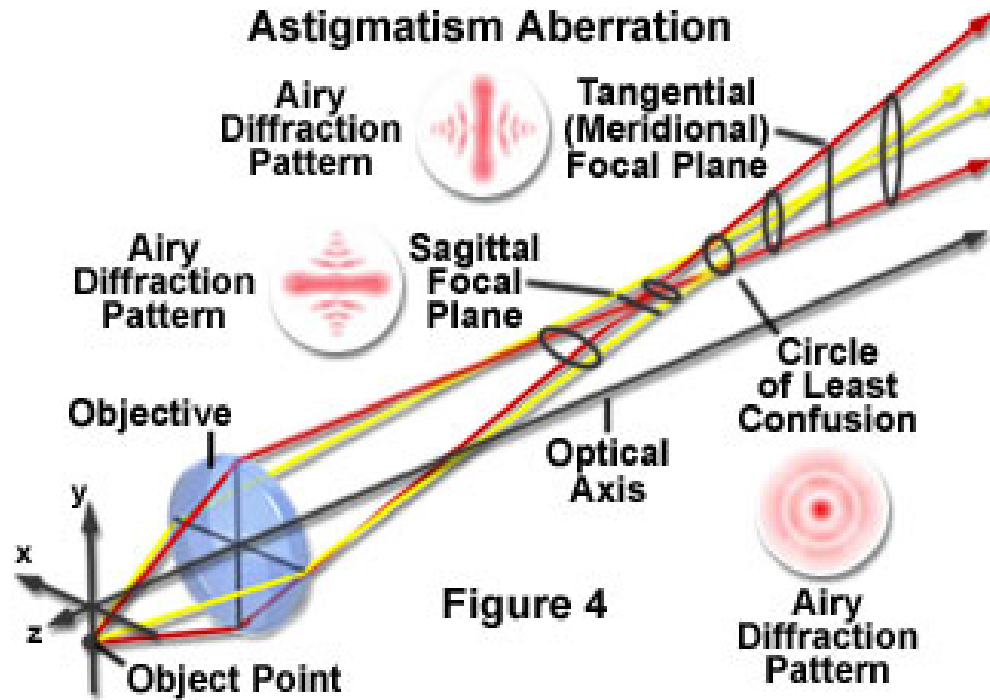


Astigmatism

Credit: (1)

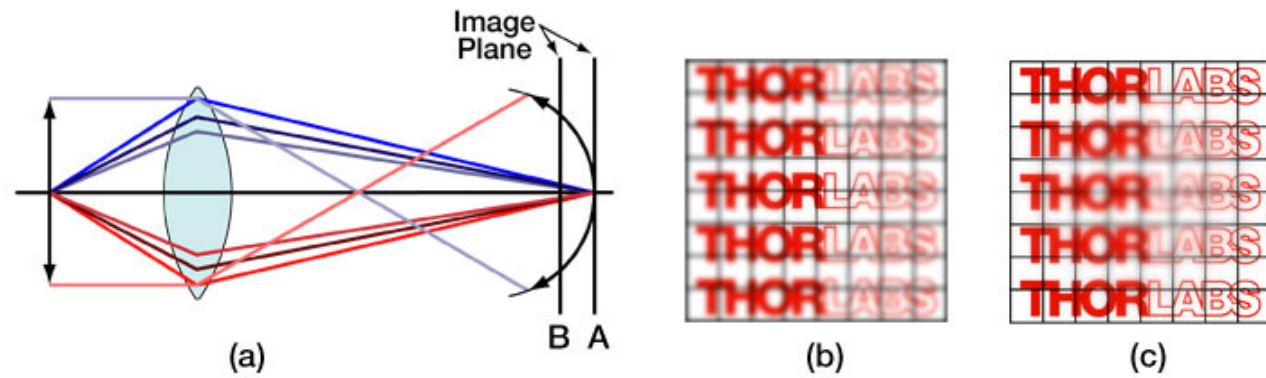


Credit: (2)



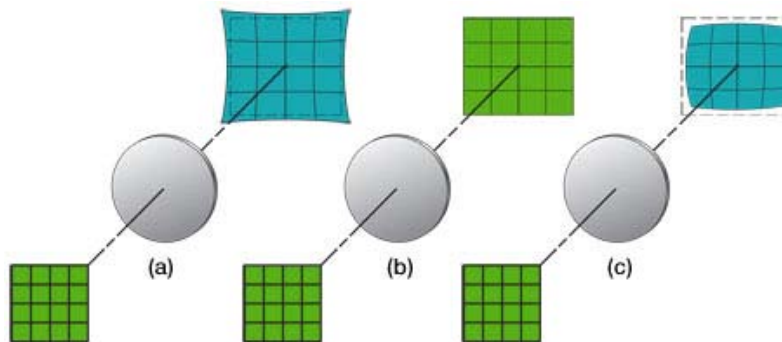
Field Curvature

Credit: (1)



Distortion

Credit: (1)



Contrast with another view of astigmatism (l) and coma (r).

Credit: (3)

