

Figure 2.1 Variation of the particle trajectory for fixed endpoints

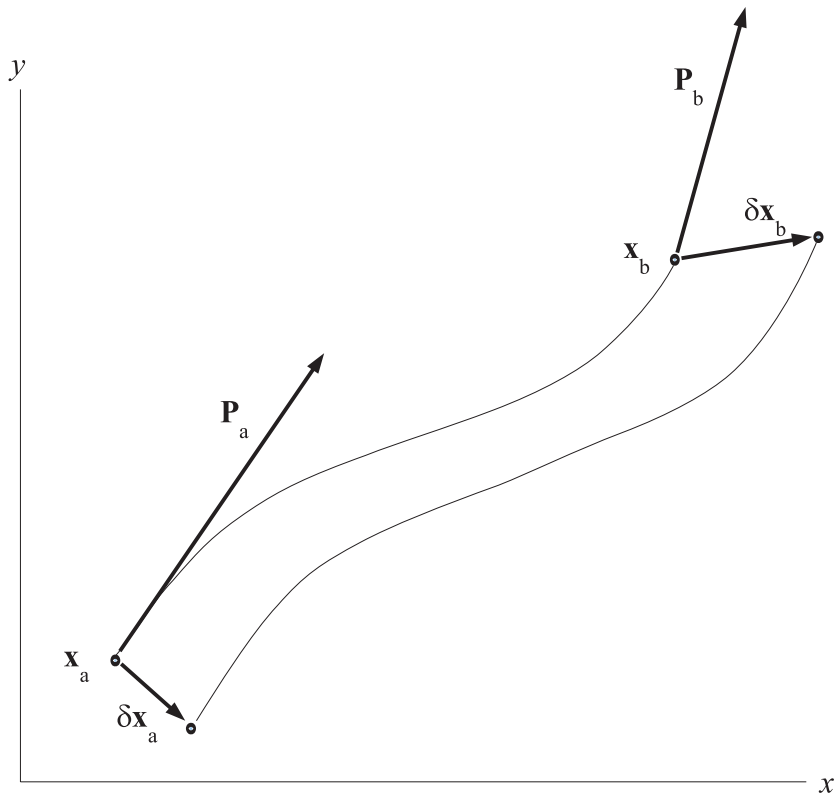


Figure 2.2 Two rays, infinitesimally displaced from one another.

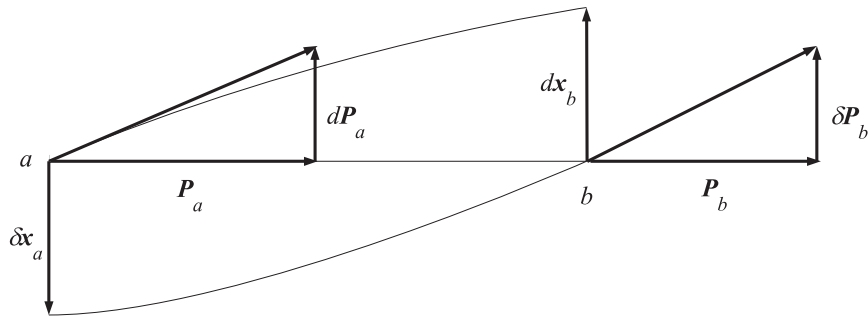


Figure 2.3 Perturbed rays for case $dx_a = dx_b = 0$.

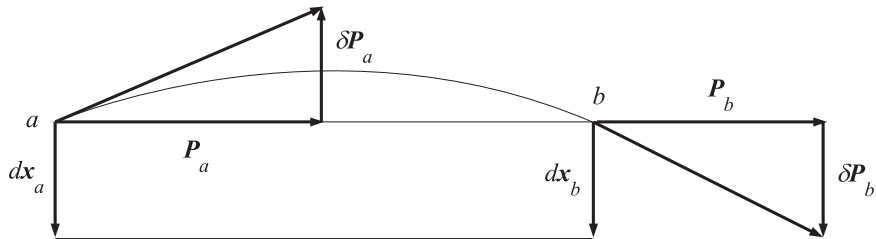


Figure 2.4 Perturbed rays for case $\delta x_a = \delta x_b = 0$.

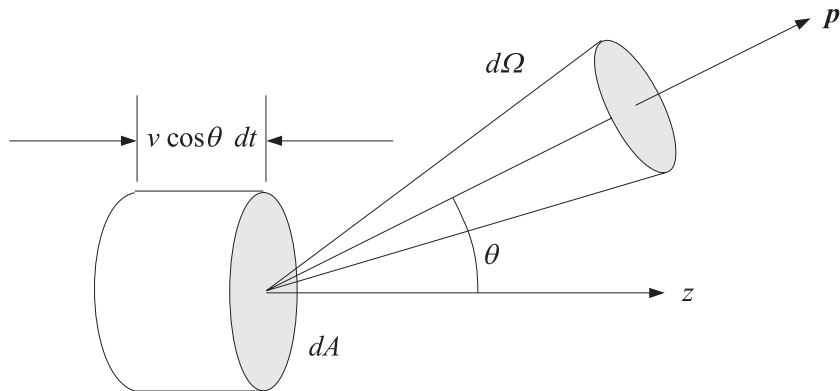


Figure 2.5 Geometry for brightness conservation.

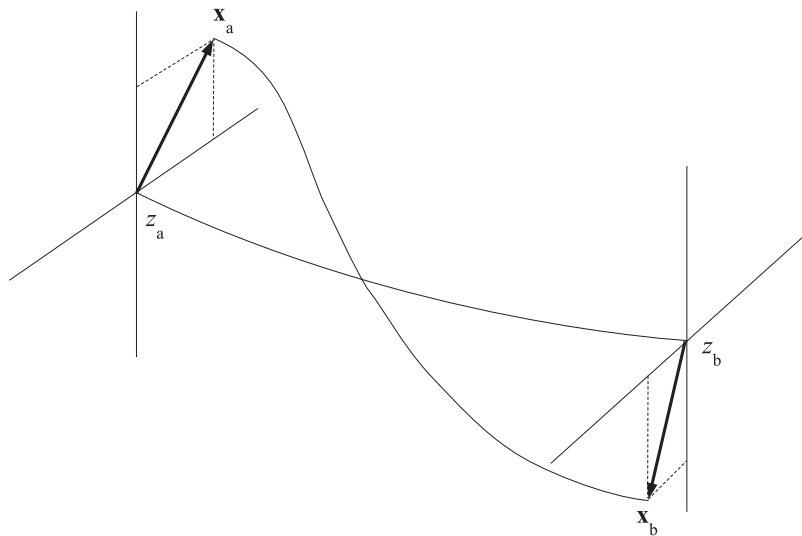


Figure 2.6 General curvilinear axis.

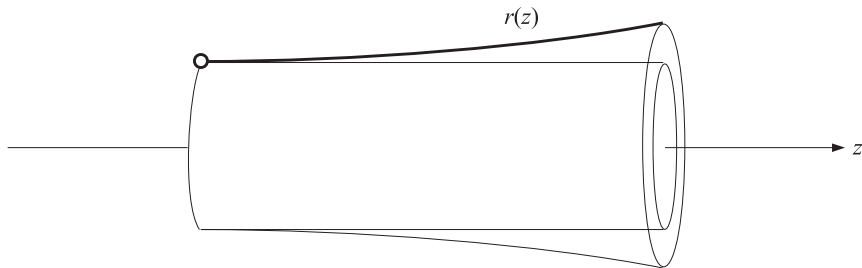


Figure 2.7 Space charge, quasi-parallel beam.

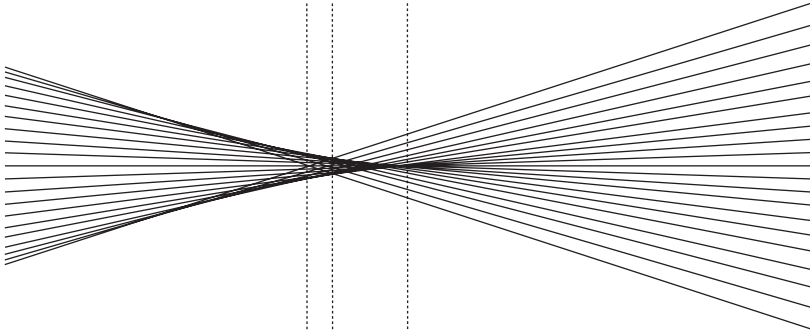


Figure 2.8 Spherical aberration.

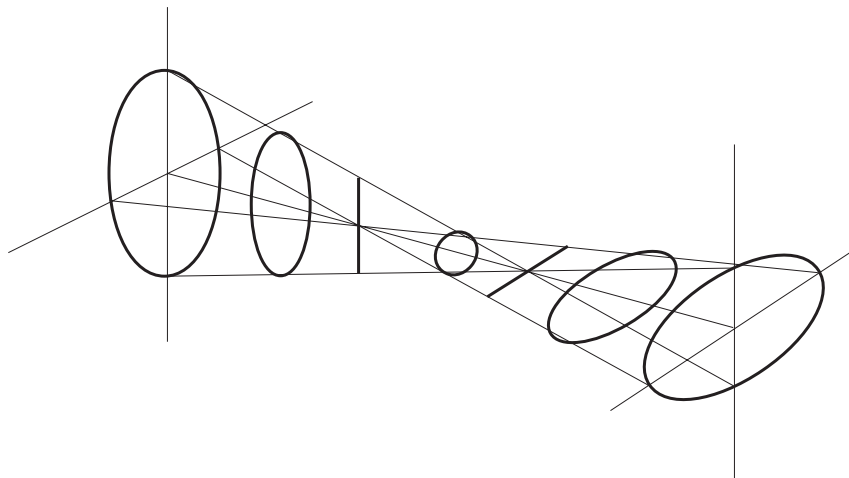


Figure 2.9 Astigmatism.

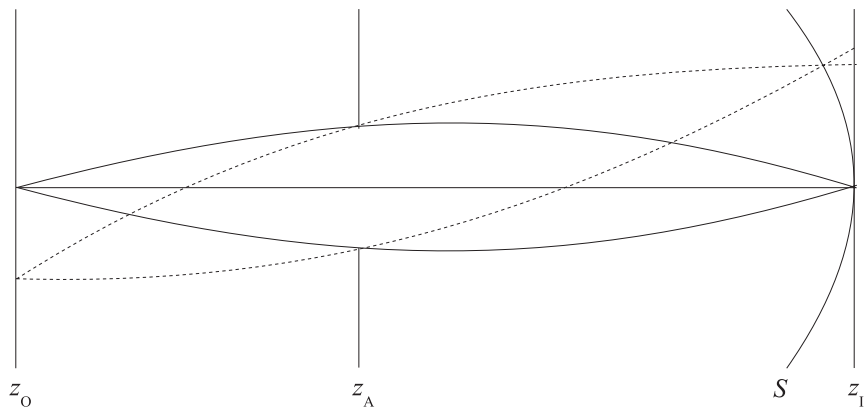
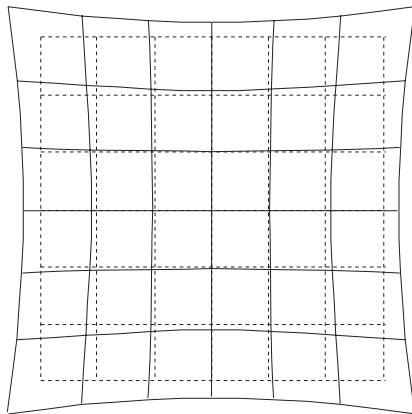
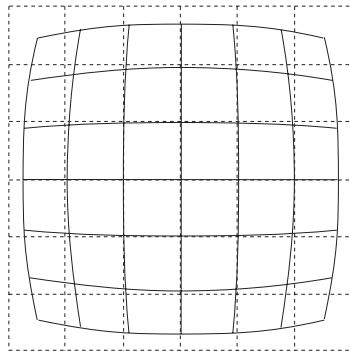


Figure 2.10 Curvature of field.



(a)



(b)

Figure 2.11 Isotropic distortion, (a) pincushion, (b) barrel.

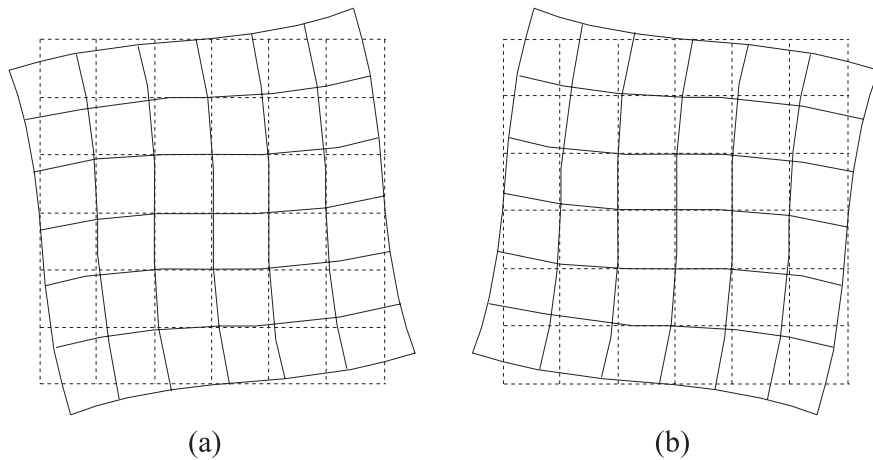


Figure 2.12 Anisotropic distortion, (a) positive, (b) negative.

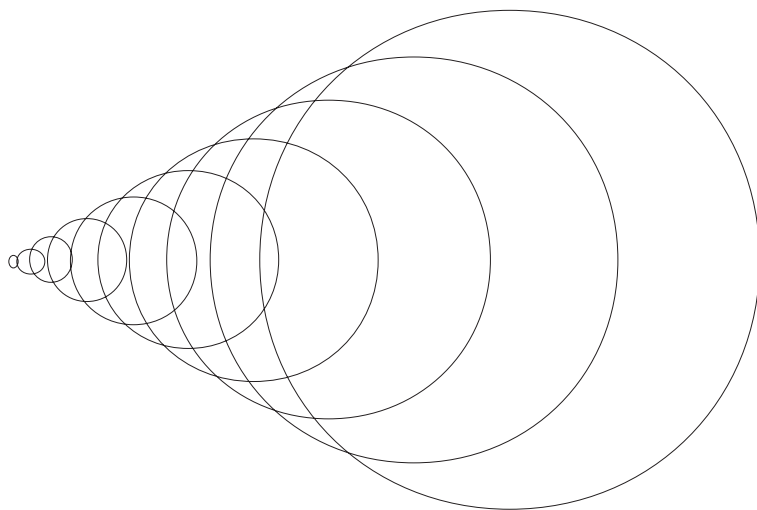


Figure 2.13 Coma.

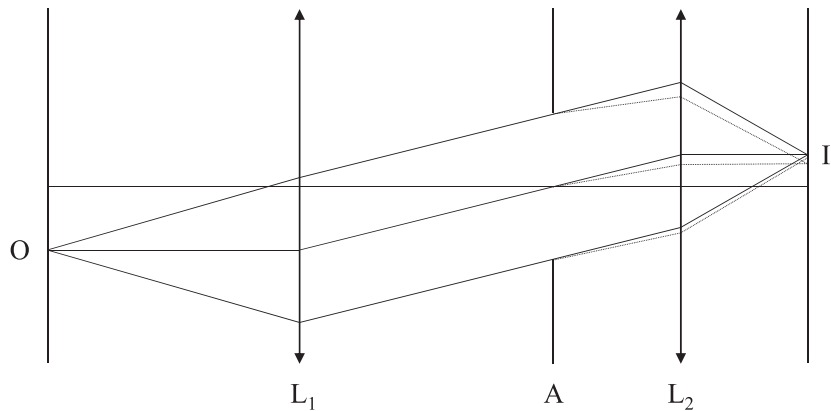


Figure 2.14 Equivalent confocal system.

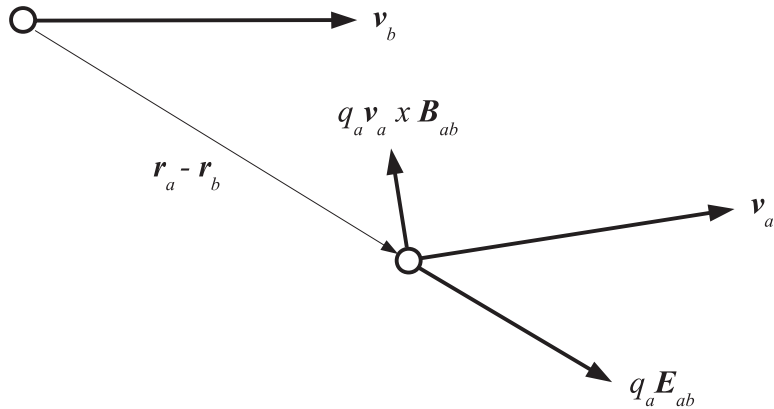


Figure 2.15 Lorentz force on a particle due to a second particle.

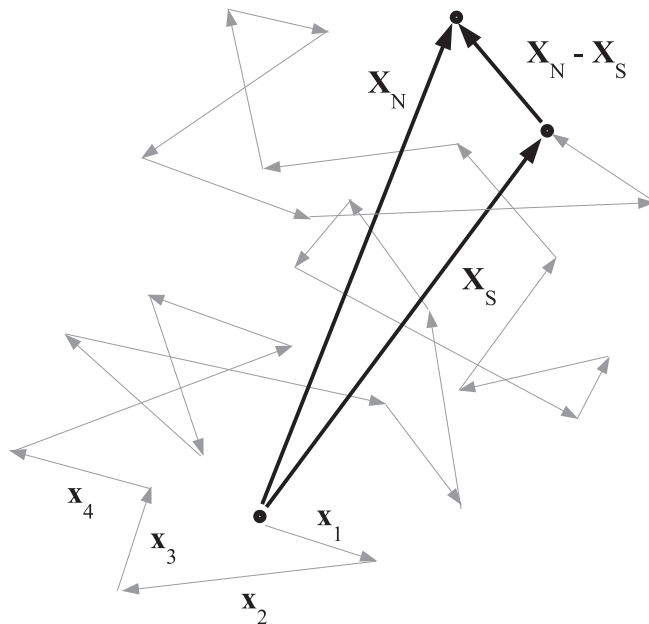


Figure 2.16 N-body interaction and superposition of two-body interactions.