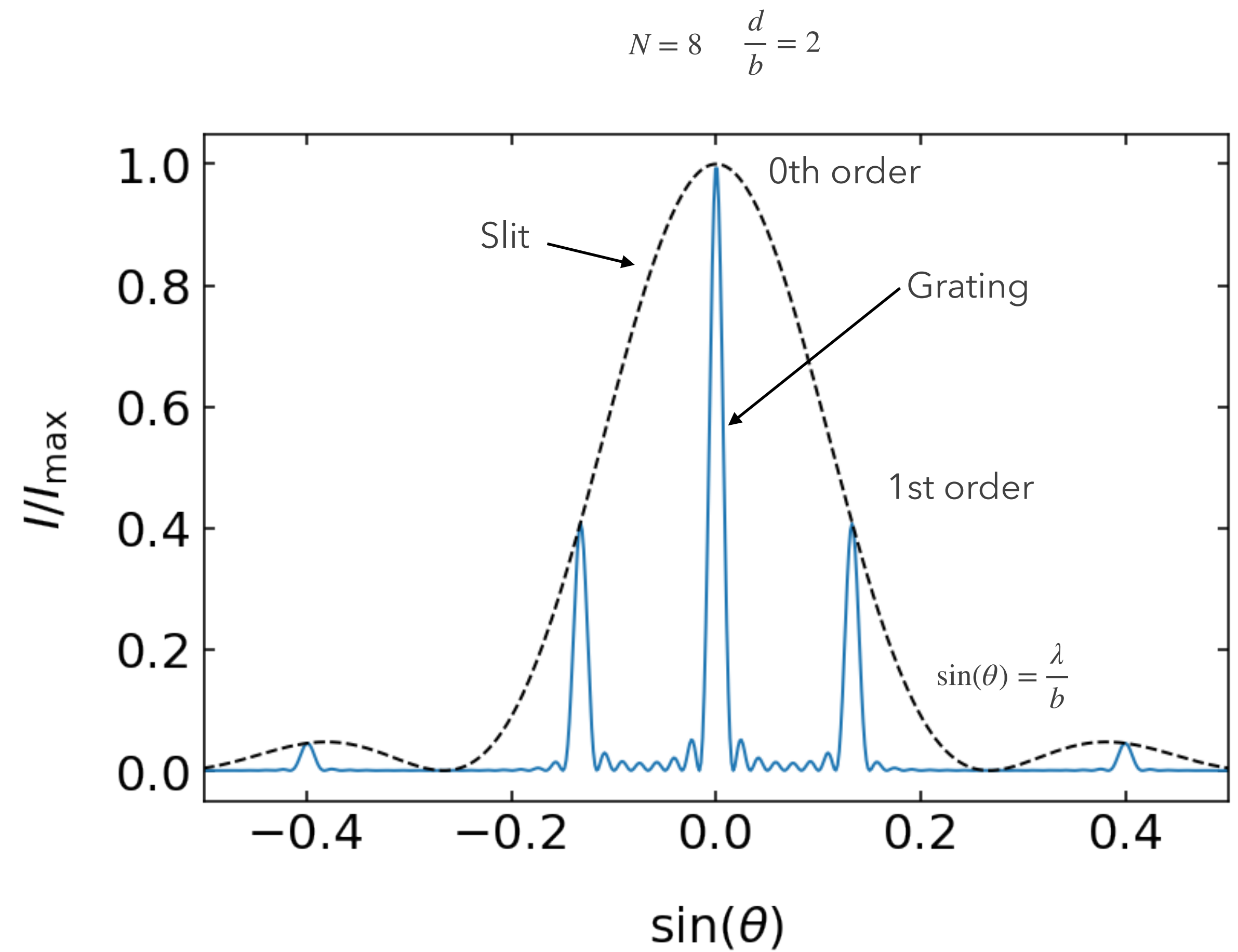
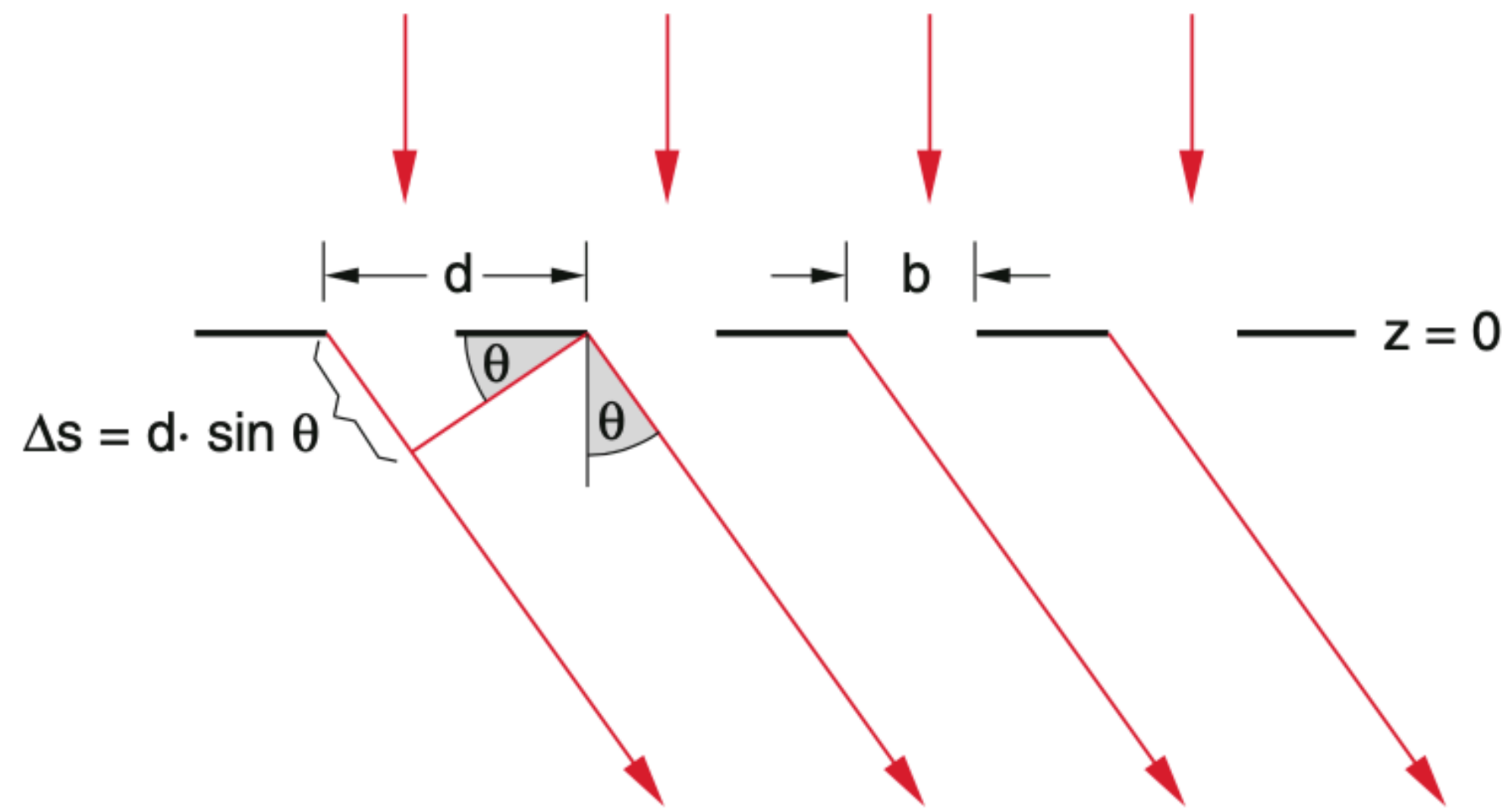


Experimental Physics 3 - Em-Waves, Optics, Quantum mechanics

Lecture 13

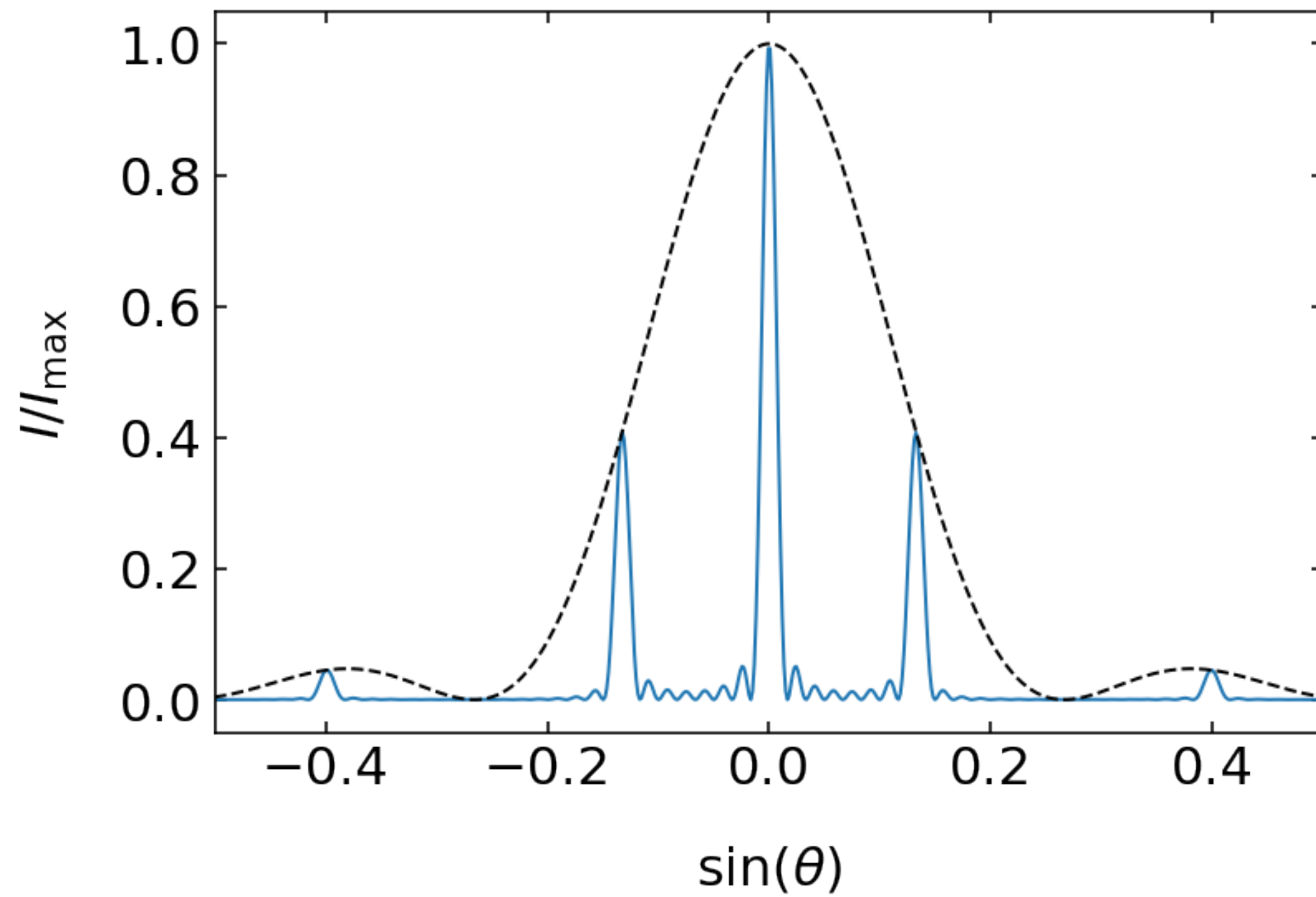
2.3 Diffraction

Diffraction Grating

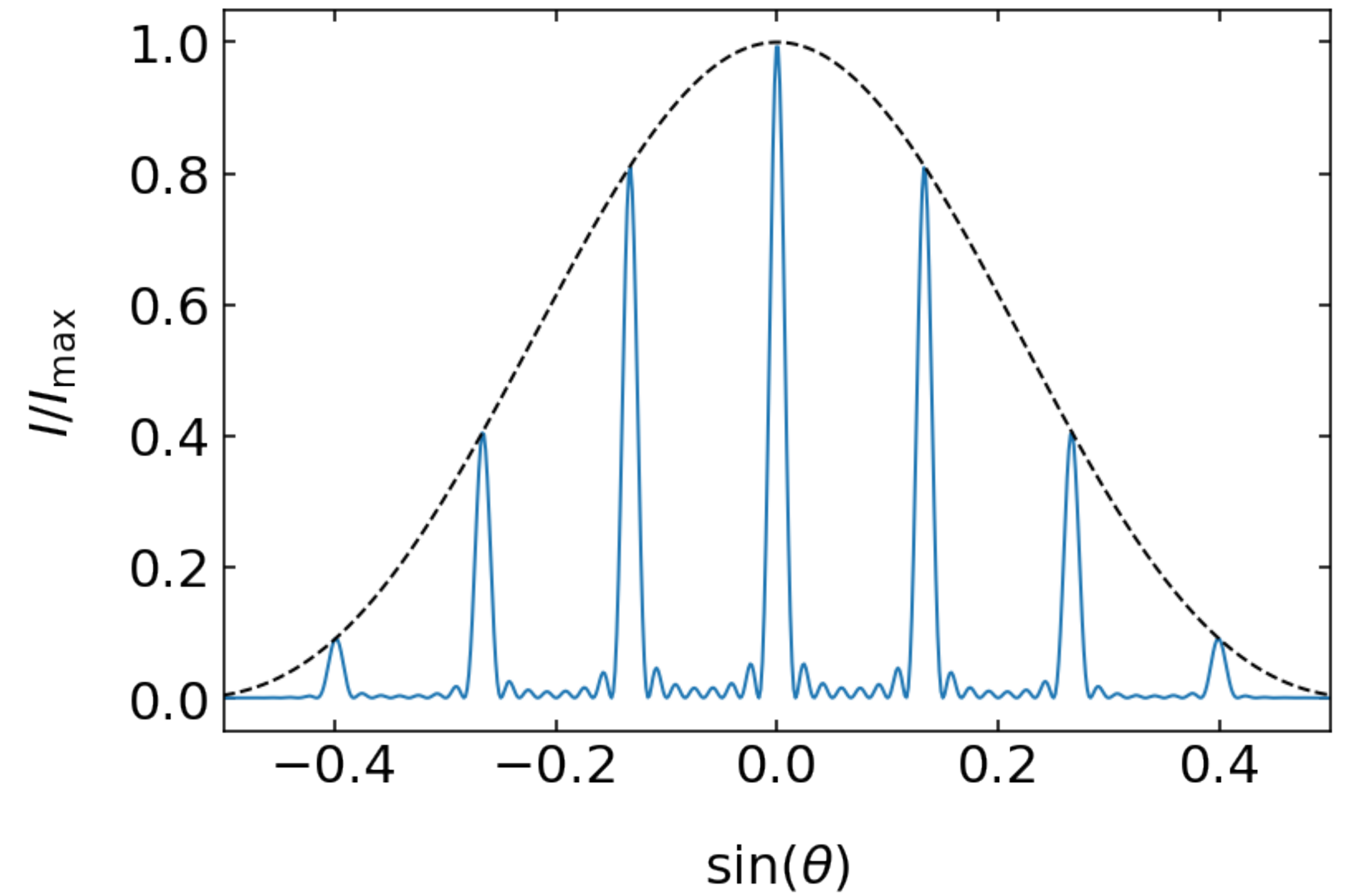


Diffraction Grating

$$N = 8 \quad \frac{d}{b} = 2$$

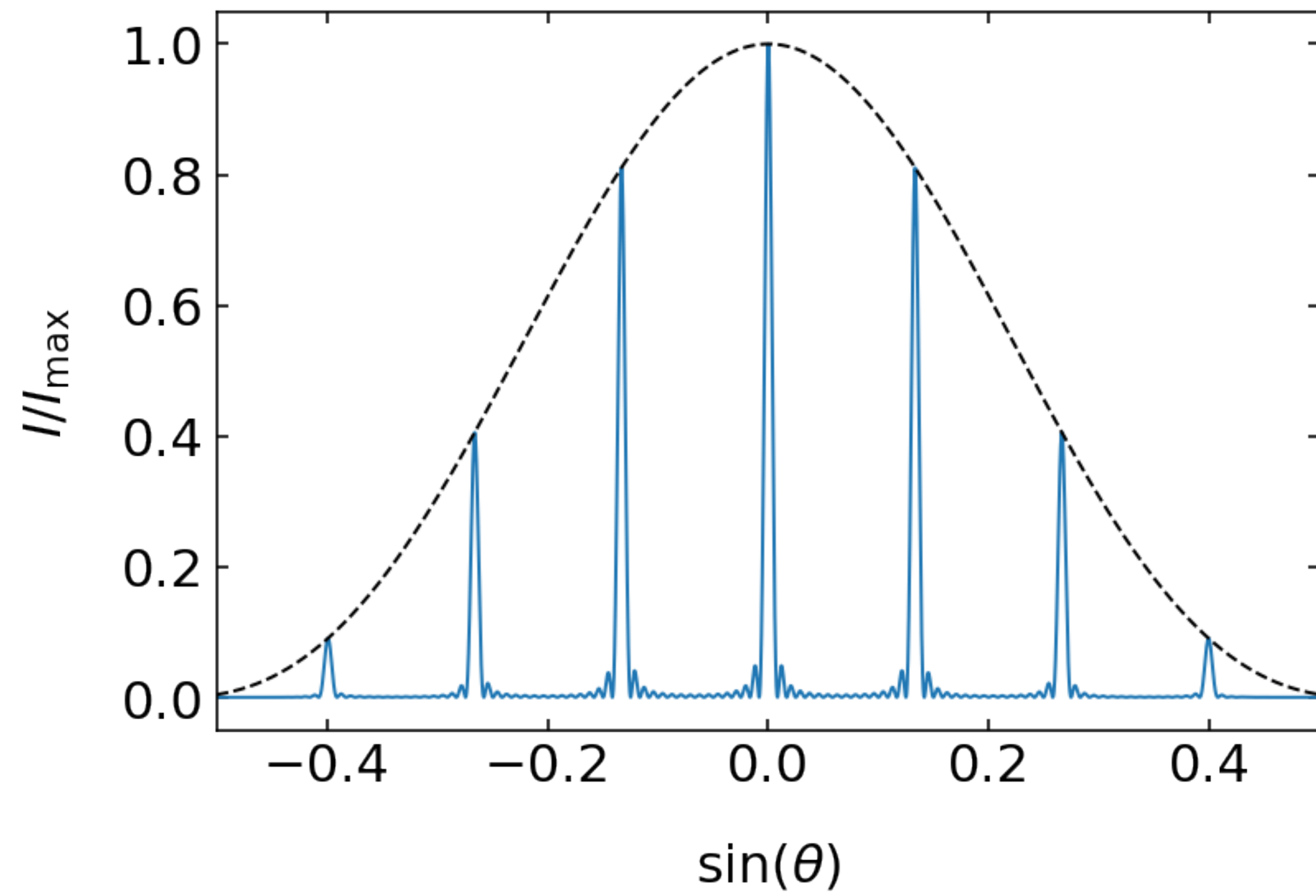


$$N = 8 \quad \frac{d}{b} = 4$$

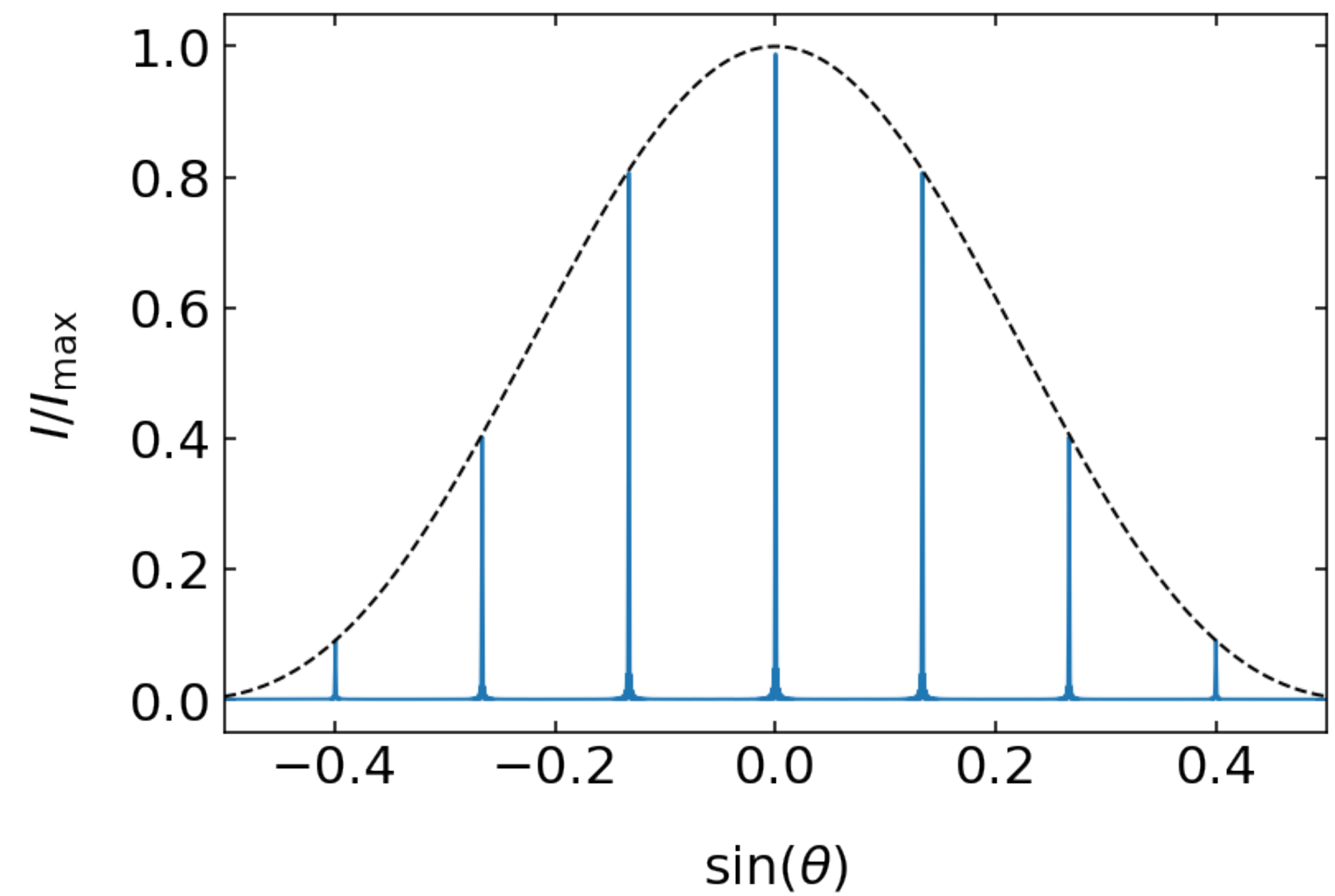


Diffraction Grating

$N = 16$

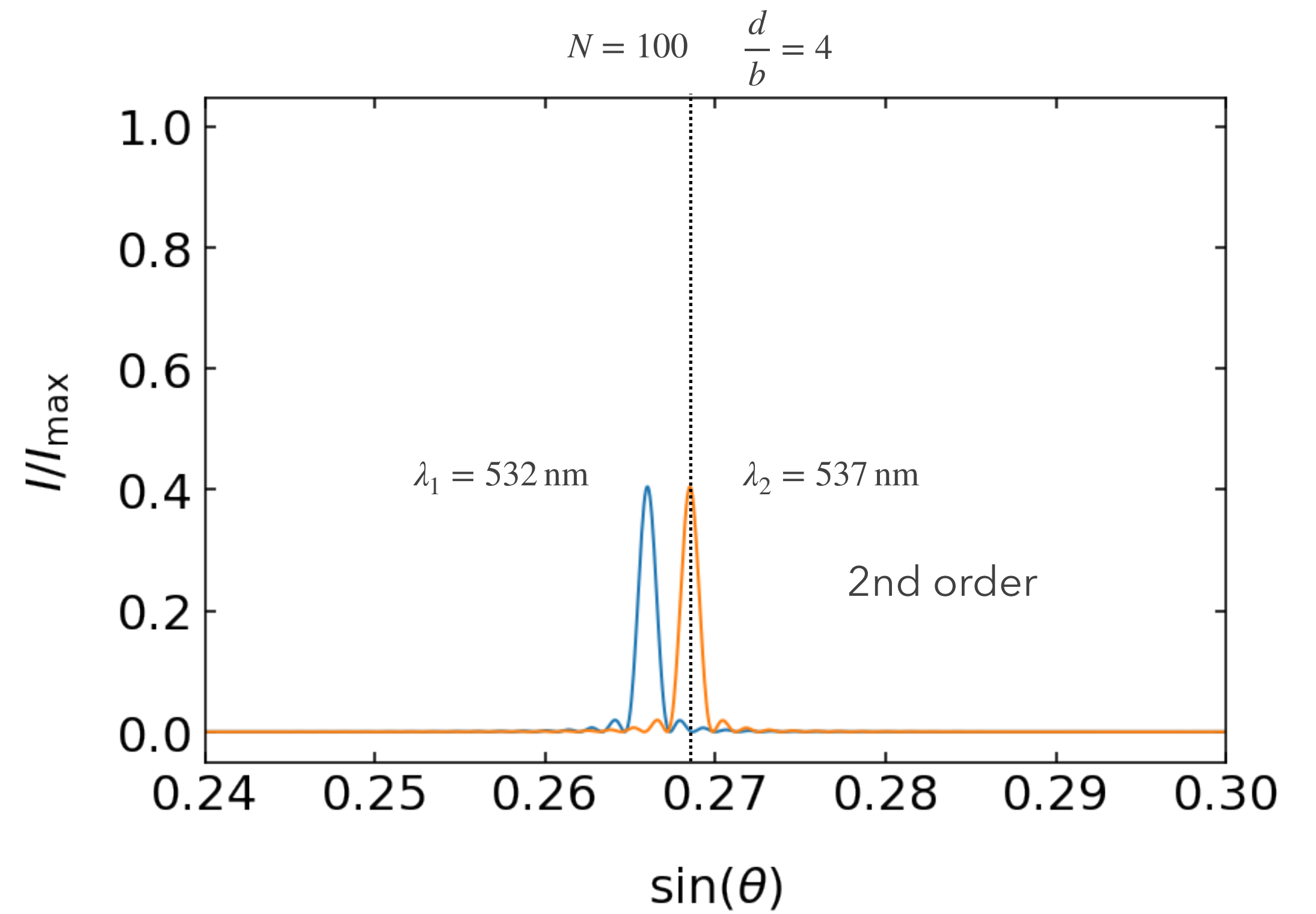
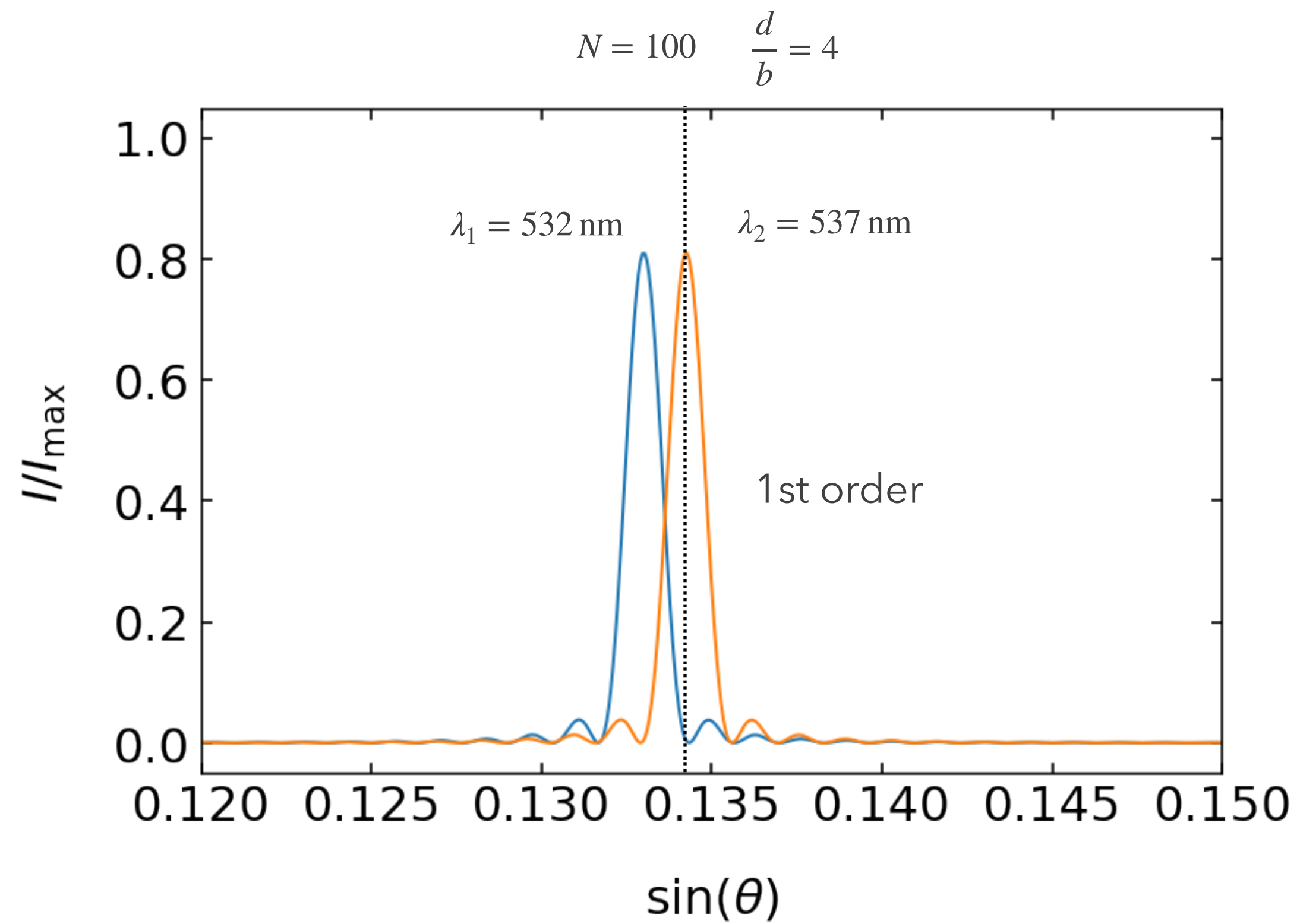


$N = 100$

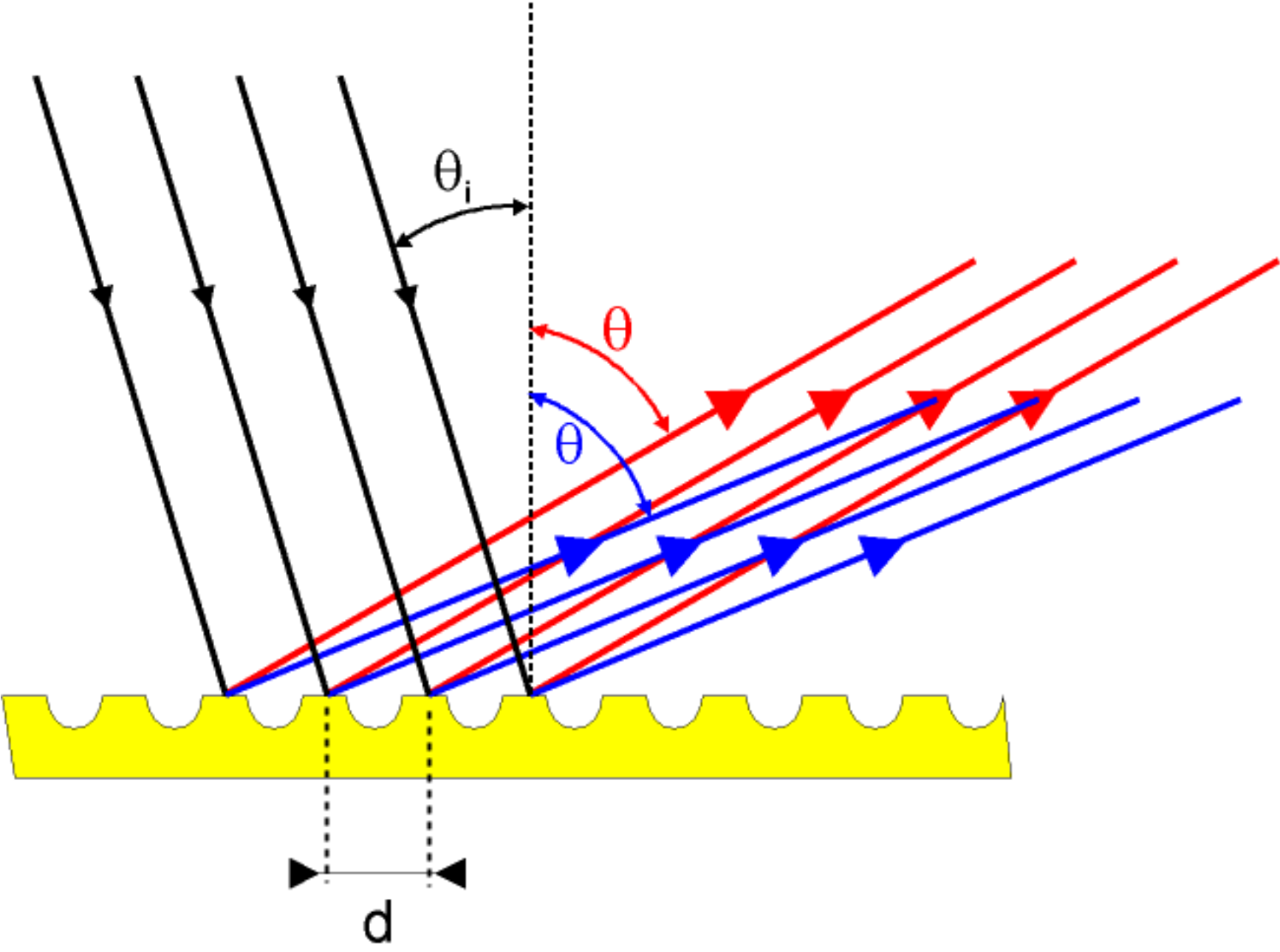


$$\sin(\theta) = \frac{\lambda}{Nd}$$

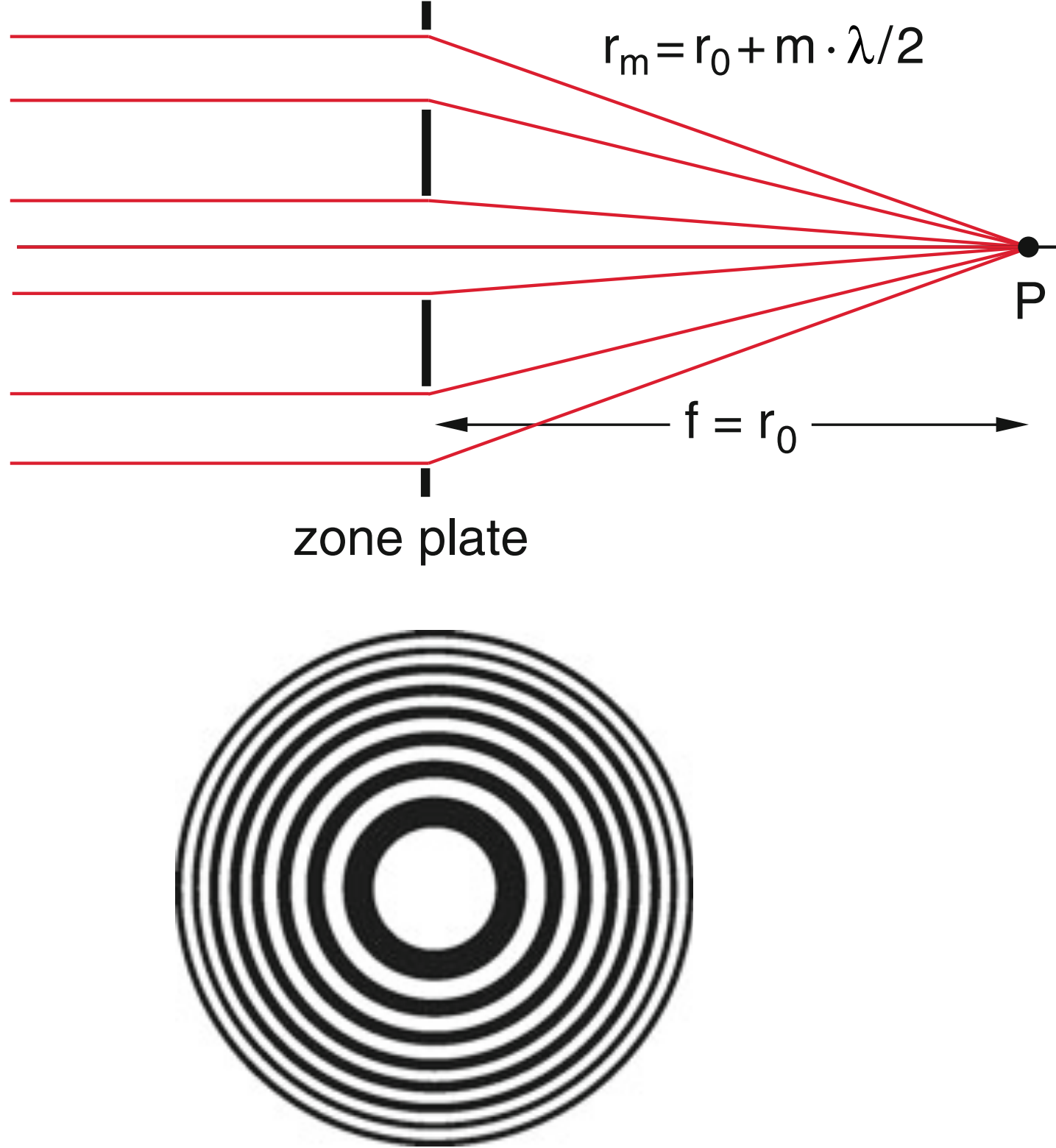
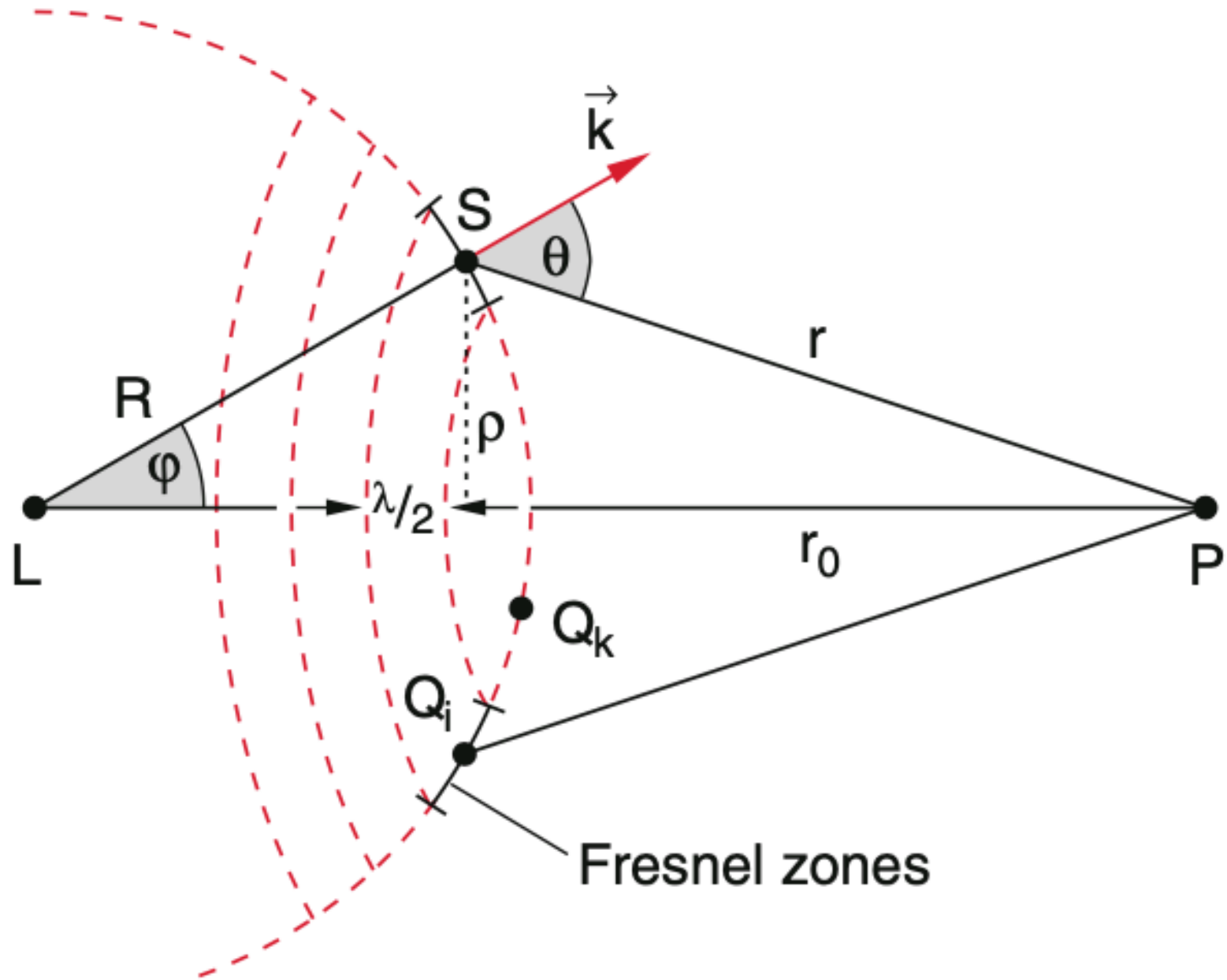
Diffraction Grating - Spectral Resolution



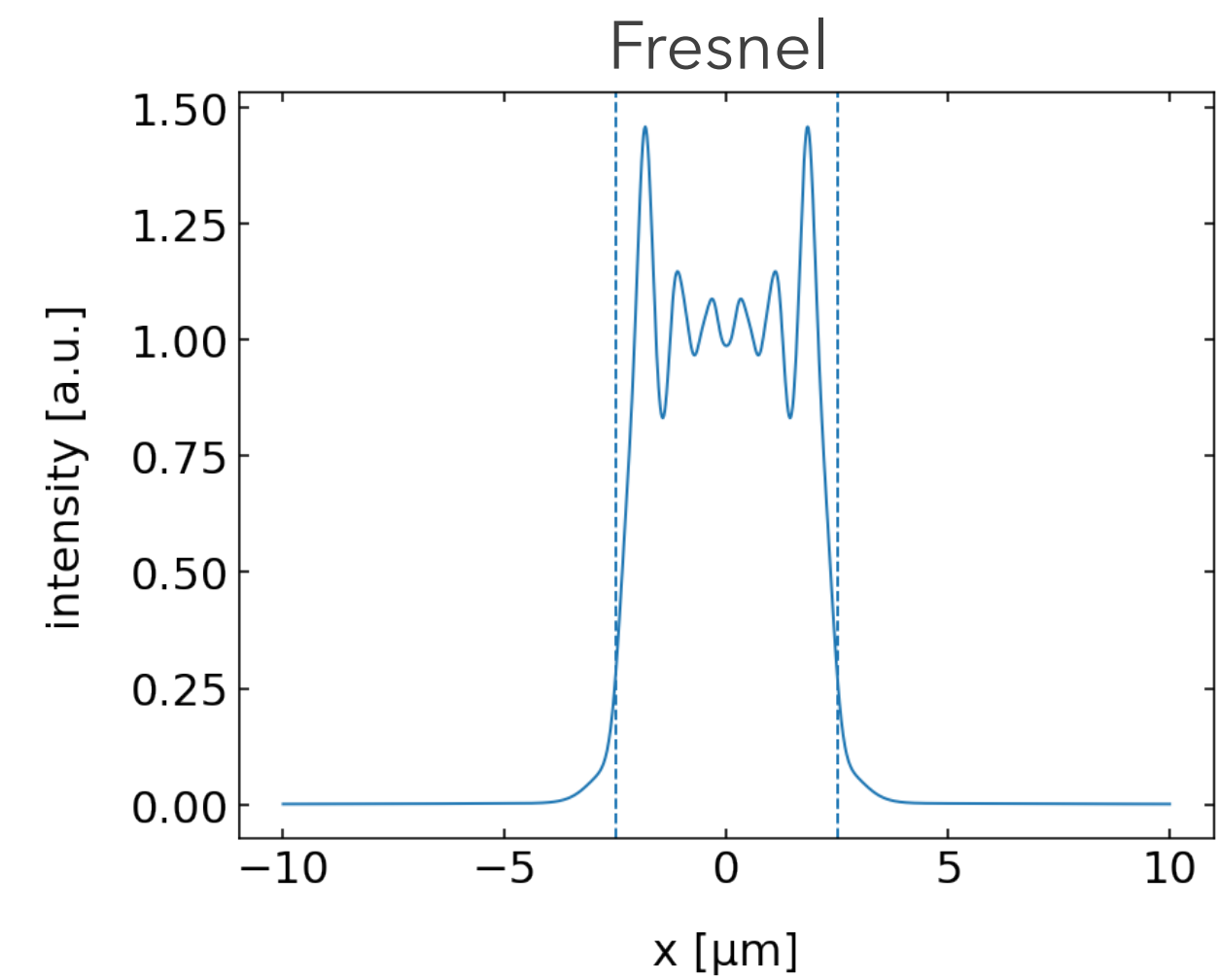
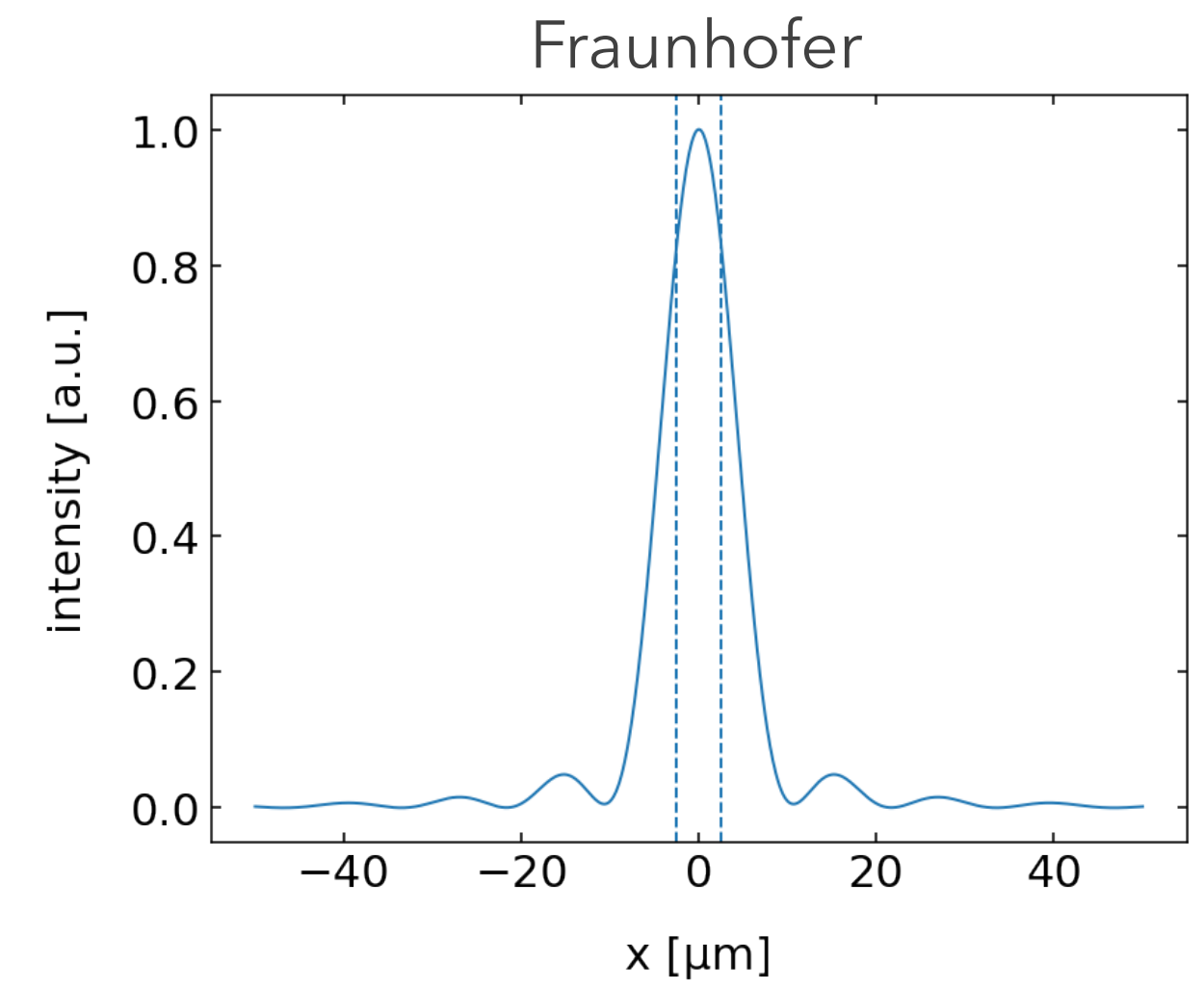
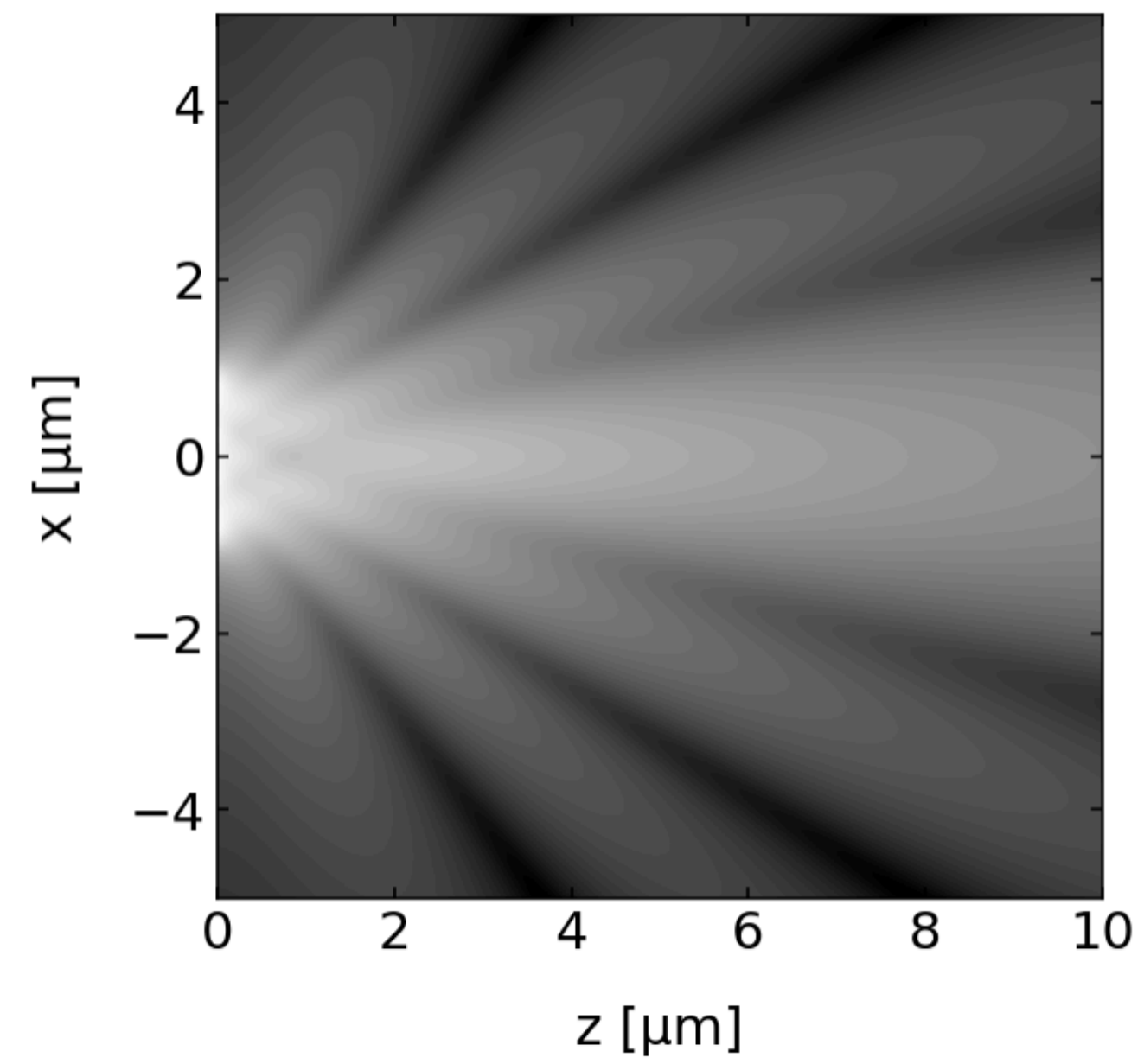
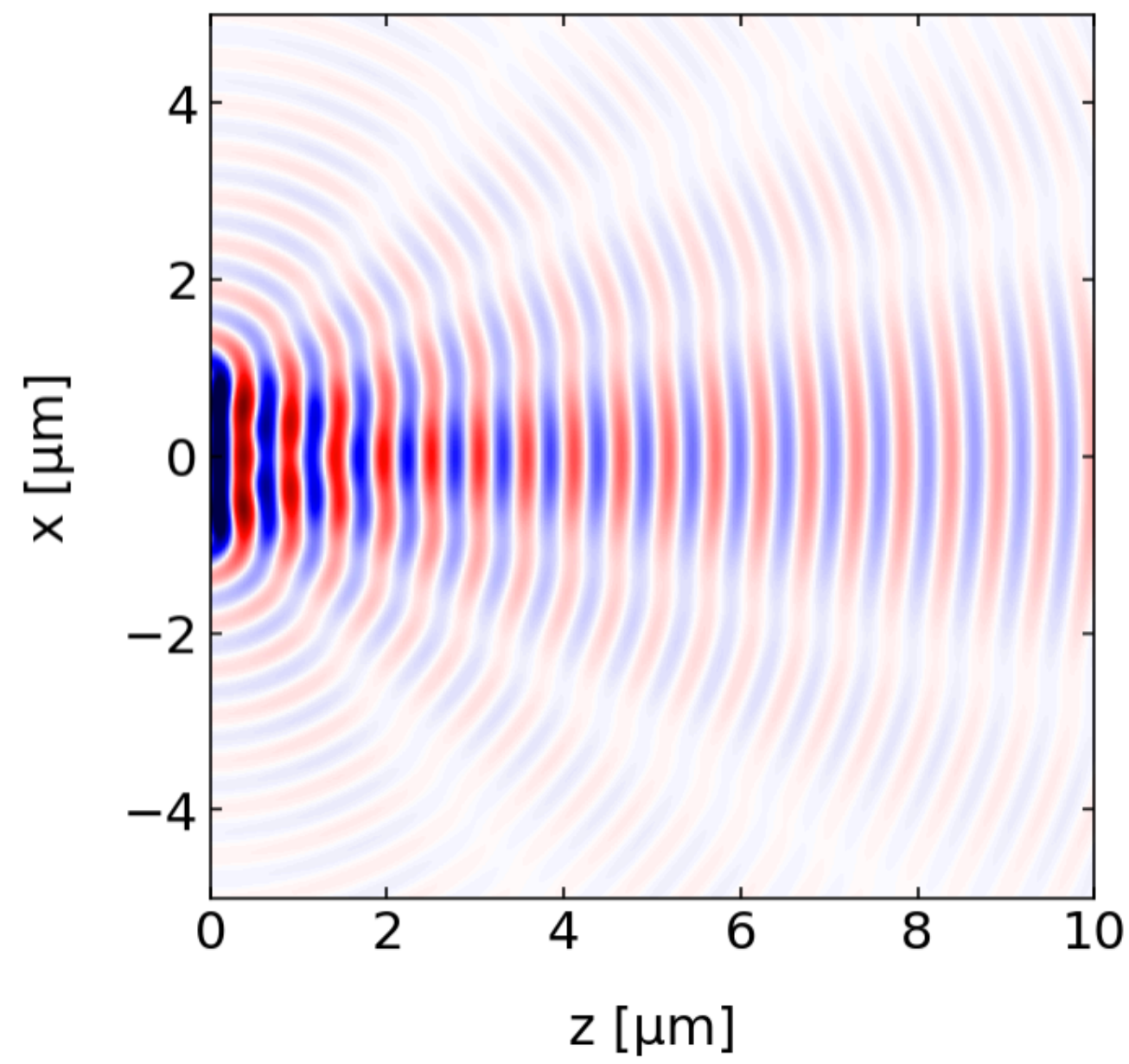
Gratings



Fresnel Zones

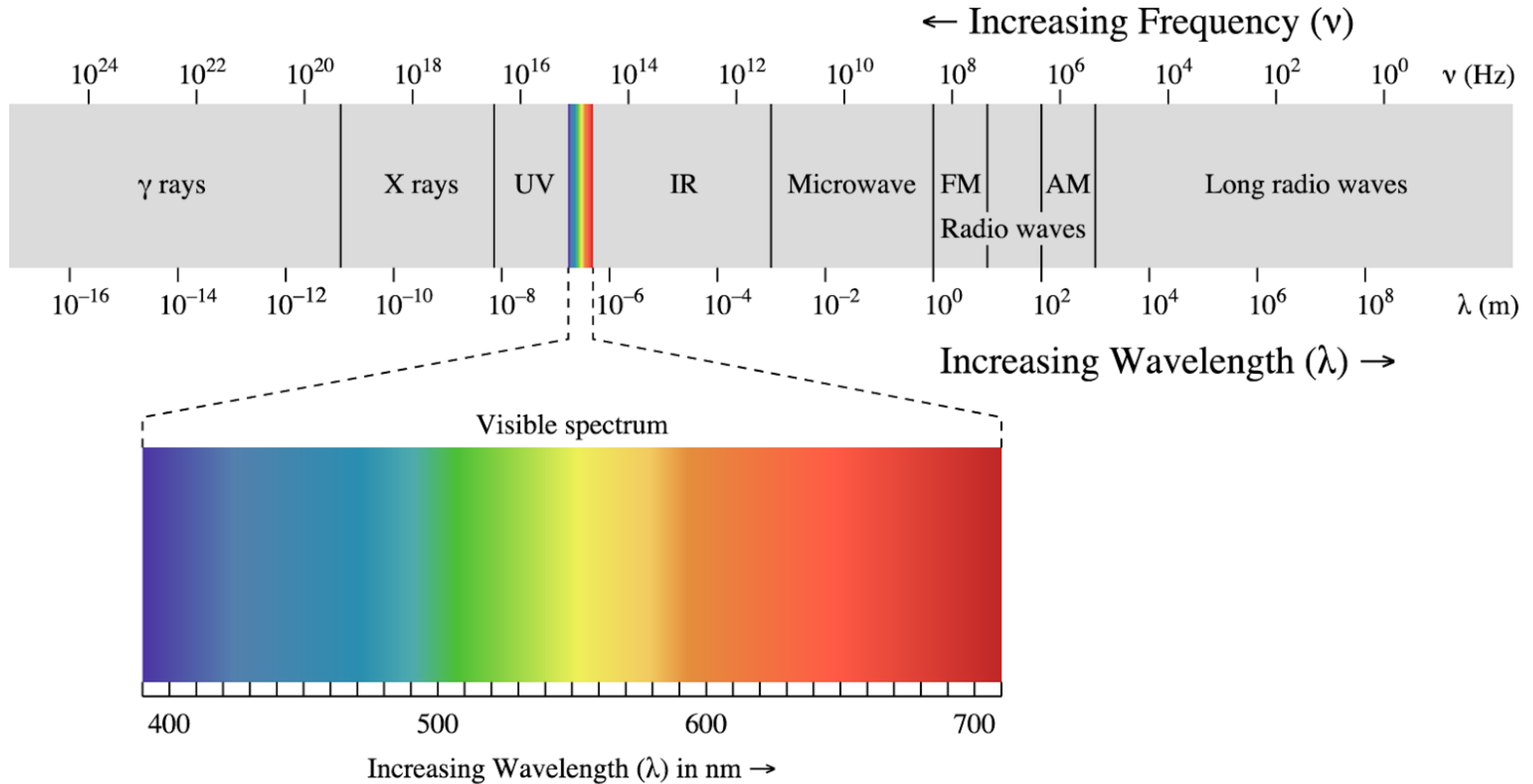


Fraunhofer / Fresnel Diffraction

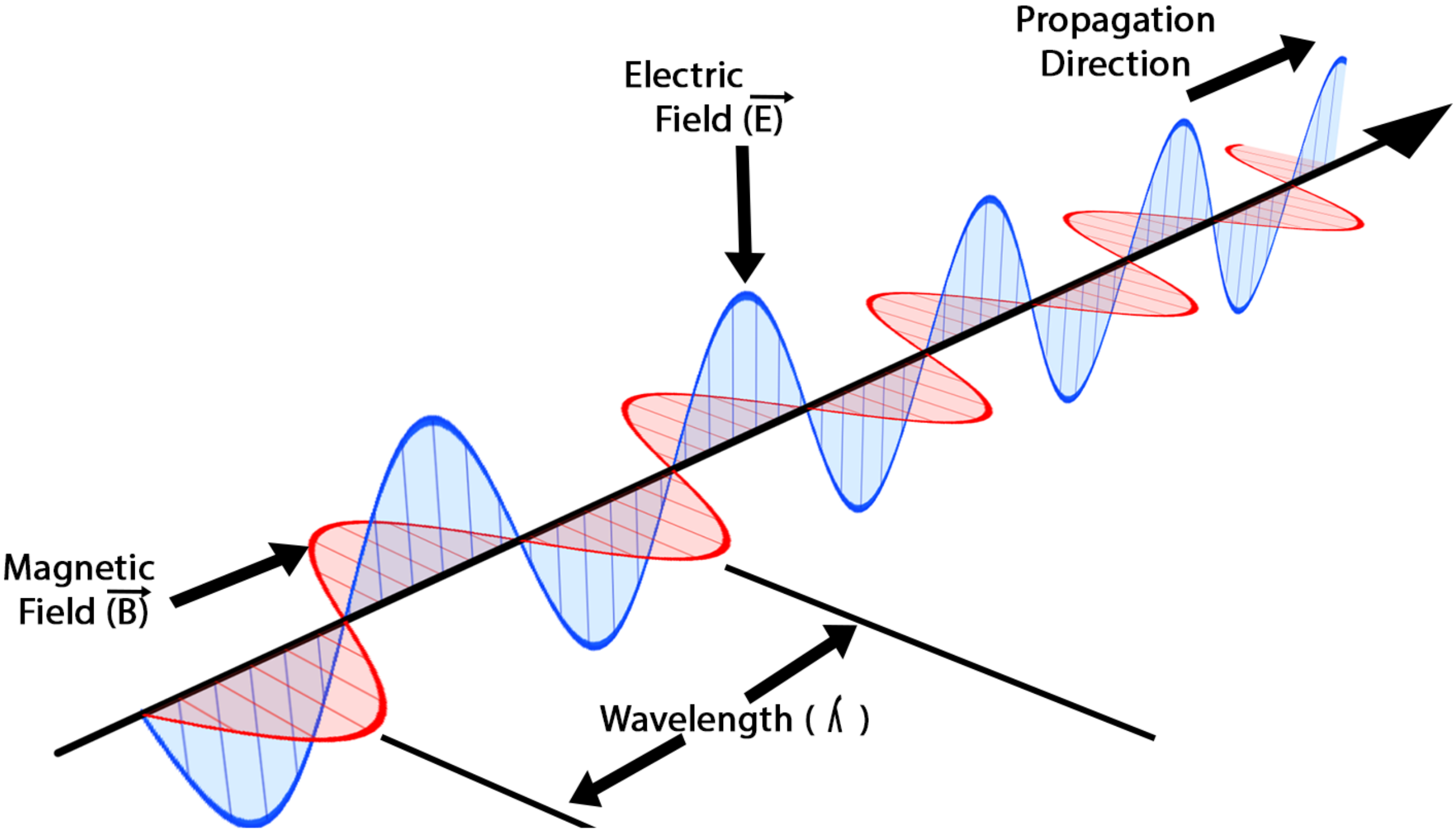


3. Electromagnetic Optics

Electromagnetic Spectrum



Electromagnetic Waves



Electromagnetic Waves - Plane Waves, Spherical Waves

