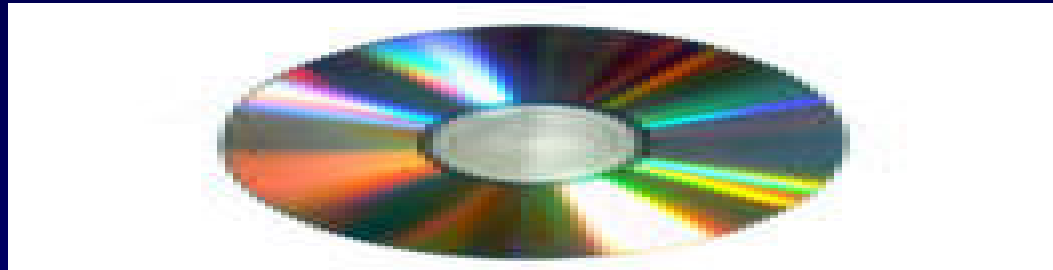


Interference Gratings

Examples around us.

CD disk – grooves spaced by \sim wavelength of visible light.



The color of some butterfly wings!



The material in the wing is not pigmented!

The color comes from interference of the reflected light from the pattern of scales on the wing— a grating with spacing of order the wavelength of visible light!

(See the text Young & Freeman, 36.5)