CODES FOR CHAPTER 1

bbfn.f, bbfn.cpp, bbfn.m

Function bbfn(x) calculates the fractional blackbody emissive power, as defined by equation (1.23), where the argument is $\mathbf{x} = n\lambda T$ with units of μ mK.

planck.f, planck.cpp, planck.m, planck.exe

planck is a small stand-alone program that prompts the user for input (temperature and wavelength or wavenumber), then calculates the spectral blackbody emissive powers $E_{b\lambda}/T^5$, $E_{b\eta}/T^3$ and the fractional blackbody emissive power $f(\lambda T)$.