

Universal Beam Plot

Due date 21/11/2016

1. Using the following parametric universal beam equations, Plot the normalized beam radius B versus normalized axial distance Z .

$$B = e^{(dB/dZ)^2 - (dB_0/dZ)^2}$$
$$Z = 2e^{-(dB_0/dZ)^2} \int_{dB_0/dZ}^{dB/dZ} e^{u^2} du$$

Create the plots for the initial slopes $dB_0/dZ = -2, -1.5, -1, -0.5, -0.25$.

2. Plot the minimum beam radius B_{min} versus the initial slope dB_0/dZ .