2. **A parabolic cavity (voluntary exercise)**
   There are several observational pieces of evidence that outflow cavities are not perfectly conical in shape. Let us try to make a somewhat more realistic model.

   (a) Let us assume that, at any given $z$ above the equatorial plane, the cylindrical radius $r_{cc}$ that defines the cavity walls is given by

   $$r_{cc} = r_0 \sqrt{z/r_0} \tag{6}$$

   for some $r_0$ to be set by you. Build this model cavity into the model (replacing the conical cavity).

   (b) Make SEDs and images to get a feeling for the result.

   (c) Show that the angle-dependency of the SED is less sharp than before.