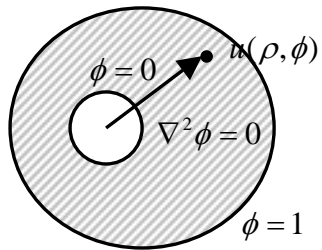Small circle: $|z| = 1$

Large circle: $|z - 1| = 2.5$

Please solve the multiply-connected problem by using Trefftz method and MFS.

Exact solution:

$$u(\rho, \phi) = \frac{1}{2\ln 2} \ln\left\{\frac{16\rho^2 + 1 + 8\rho\cos\alpha}{\rho^2 + 16 + 8\rho\cos\alpha}\right\}$$