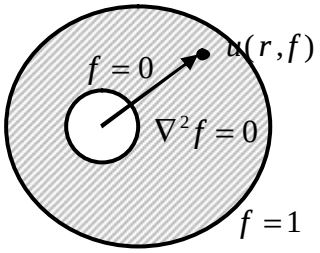
程式 58 Trefftz and MFS (eccentric case)



Small circle: $|z|=1$

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

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

Exact solution:

$$u(r,f)=\frac{1}{2\ln 2}\ln\{\frac{16r^2+1+8r\cos a}{r^2+16+8r\cos a}\}$$

References:

【1】J.T. Chen, I.L. Chen, C.S. Wu, On the equivalence of MFS and Trefftz method for Laplace problems, Global Chinese Workshop on Boundary Element and Meshless Methods, Qinhuandao, 2003.