Flow between Eccentric Rotating Cylinders (Case 1)
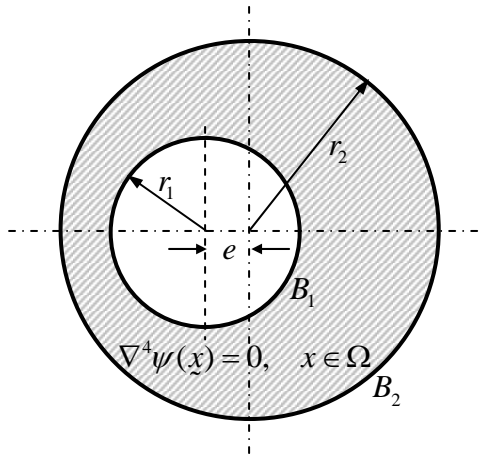

Geometry Conditions:

$r_1 = 0.5$

$r_2 = 1$

$e = 0.25$
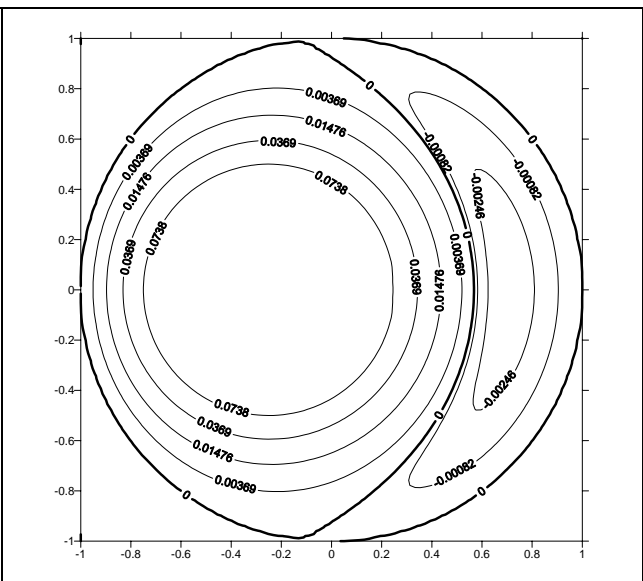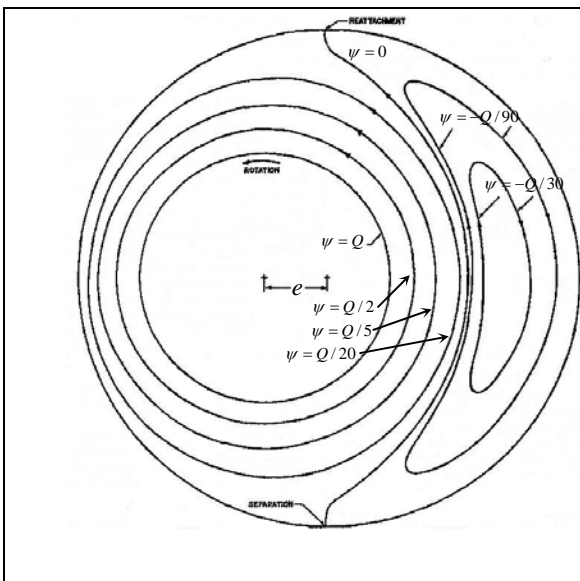
Governing Equation:

$\nabla^4 \psi(\underset{\sim}{x}) = 0, \quad x \in \Omega$
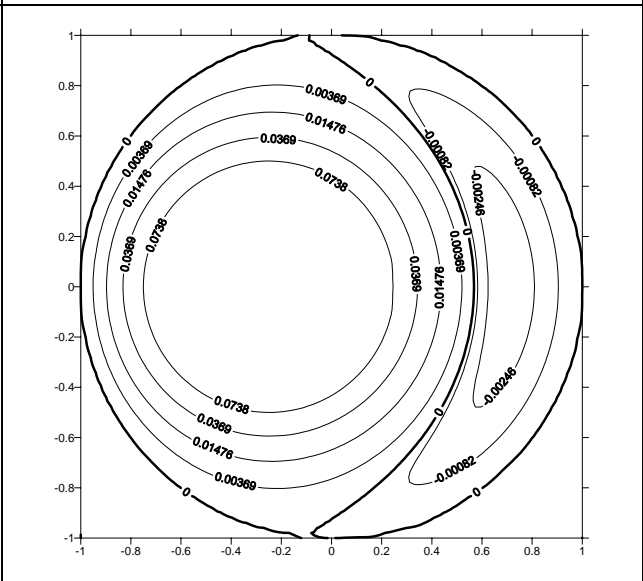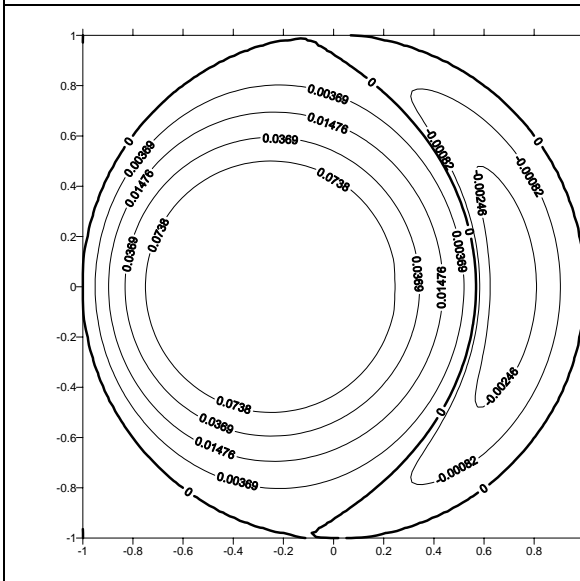
Boundary Conditions:

$\psi = \psi_1 = 0.0738 \quad \text{and} \quad \dfrac{\partial \psi}{\partial n} = \Omega_1 r_1 = 0.5 \quad \text{on} \quad B_1$

$\psi = 0 \quad \text{and} \quad \dfrac{\partial \psi}{\partial n} = 0 \quad \text{on} \quad B_2$

 Numerical solution (Kamal, 1966) [] $Q = 0.0738$	 BIEM (M=10)
 BIEM (M=20)	 BIEM (M=40)