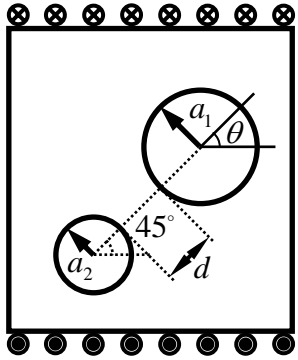
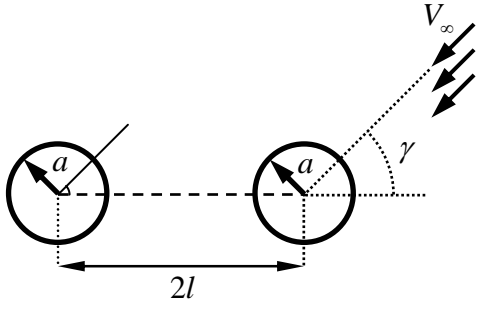


	吳安傑	沈文成
物理問題	反平面二空洞問題 	二圓柱流場問題 
Governing equation	$\nabla^2 u_t(x) = 0, x \in D$	$\nabla^2 u_t(x) = 0, x \in D$
Boundary condition	$\frac{\partial u_t}{\partial n} = 0$ on B	$\frac{\partial u_t}{\partial n} = 0$ on B
Potential function	$u_t = u + u^\infty$	$u_t = u + u^\infty$
滿足無窮遠項	$u^\infty = \frac{\tau y}{\mu}$, the medium is under shear $\sigma_{32}^\infty = \tau, \sigma_{31}^\infty = 0$.	$u^\infty = V_\infty x \cos \gamma + V_\infty y \sin \gamma$, where V_∞ is the velocity at infinity making angle γ with the line joining the centers of the cylinders.
Present method (BIEM)	G.E. $\nabla^2 u = 0, x \in D$ B.C. $\frac{\partial u}{\partial n} = \frac{\tau}{\mu} \sin \theta, x \in B, 0 < \theta < 2\pi$ 解 u	G.E. $\nabla^2 u = 0, x \in D$ B.C. $\frac{\partial u}{\partial n} = V_\infty \cos \theta \cos \gamma + V_\infty \sin \theta \sin \gamma$, $x \in B, 0 < \theta < 2\pi$ 解 u

Reference :

1. Chou, S. I., 1997, Stress field around holes in antiplane shear using complex variable boundary element method, *Journal of Applied Mechanics*, Vol. **64**, pp. 432-435.
2. Honein, E., Honein, T., and Herrmann, G., 1992, On two circular inclusions in harmonic problem, *Quarterly of Applied Mathematics*, Vol. **50**, pp. 479-499.
3. Lebedev, N. N., Skalskaya, I. P. and Uyand, Y. S., 1979, Worked problem in applied mathematics, *Dover*, New York.
4. Chen, J. T. and Hong H.-K., 1992, Boundary element method, 2nd Edition, *New World Press*, Taipei, Taiwan.