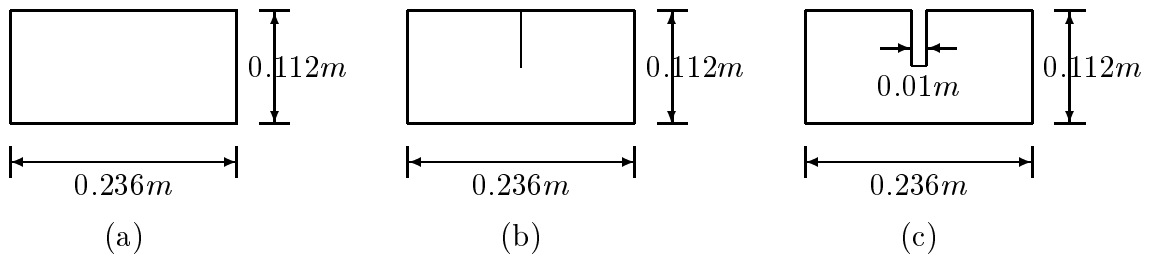


程式9(b) ACOUSTICS by real-part BEM



1. Problem statement:

$G.E.:$ $(\nabla^2 + k^2)p(x, y) = 0, \quad (x, y) \in D$
 $BC:$ $\frac{\partial p}{\partial n} = 0, \quad (x, y)$ on the boundaries
 where $k = \frac{\omega}{c}$.

2. Fill in the acoustic frequencies in following table

Mode no.	(a)	(b)	(c)
1			
2			
3			
4			
5			
6			

3. Please show

- (1). BEM mesh
- (2). Pressure contour for acoustic modes
- (3). 3-D plot for pressure of acoustic modes

References

- [1] J. T. Chen, S. R. Kuo and Y. C. Cheng, 2000, On the true and spurious eigensolutions using circulants for real-part dual BEM, Proceedings of IU-TAM/IACM/IABEM Symposium on Advanced Mathematical Computational Mechanics Aspects of Boundary Element Method, pp.75-85, Cracow, Poland, Kluwer Press.
- [2] S. R. Kuo, J. T. Chen and C. X. Huang, 2000, Analytical study and numerical experiments for true and spurious eigensolutions of a circular cavity using the real-part dual BEM, Int. J. Numer. Meth. Engng., Vol.48, No.9, pp.1401-1422. (SCI and EI)
- [3] J. T. Chen, C. X. Huang and K. H. Chen, 1999, Determination of spurious eigenvalues and multiplicities of true eigenvalues using the real-part dual BEM, Computational Mechanics, Vol.24, No.1, pp.41-51. (SCI and EI)