

## 邊界元素法1998 作業集

1. Find a journal paper on BEM.
2. Derive a fundamental solution for a beam.
3. Derive the stiffness matrix for a rod.
4. Derive the mean theorem for Laplace equation using BEM.
5. Plot the potential functions for  $U, T, L$  and  $M$  kernels.
6. Check the constant potential and equilibrium condition by hand.
7. Check the constant potential and equilibrium condition by program.
8. Solve the problem of cracked bar by BEPO2D program.
9. Derive the free term for dual BIE in 3-D Laplace equation.
10. Solve the exterior and exterior problems by changing the elements.
11. Solve the exterior and exterior problems by changing the contour direction.
12. Solve the Laplace equation by using limiting process in DUALHAK program.
13. Solve the former three modes for a membrane with a stringer.
14. Solve the 2-D crack problems by using BEASY-CRACK program.
15. Solve the fictitious eigenvalue in one-dimensional exterior problems.
16. Filter out the spurious eigenvalues by using Least Square method.