

Null-field integral formulation for problem with circular boundary

Topic	主力戰將	關注重點	成果
New MFS (2D Laplace)	高政宏		29 th 力學會議 EABE in Press
Laplace (2D)	沈文成	內外域 半平面 偏心圓退化尺度	EABE, MRC, CMES, 28 th 力學會議, ICCM2004, 2005 計算機在土木水利應用, ICOME 2006 29 th 力學會議, MRC appear
	陳柏源	Bending(算應力)	JoM
	吳安傑	置入物 壓電力學	ASME-JAM, 8 th 結構工程研討會 EABE, 30 th 力學會議
	李應德	夾雜 torsion	ICOME 2006
	廖奐禎	偏心圓格林函數	碩一結構專討課程
	廖奐禎	同心圓(image)	碩二加油
	柯佳男	半平面格林函數	碩一結構專討課程
	柯佳男	夾雜格林函數	碩二加油
Laplace (3D)			
Helmholtz (2D)	陳佳聰	內外域聲場 (hole)	28 th 力學會議 2005 計算機在土木水利應用
	陳柏源	Exterior acoustics (inclusion)	8 th 結構工程研討會
	李應德	山峰	
Modified Helmholtz			
Helmholtz (3D)	劉德源	真假根	
Elasticity(2D)	李應德	邊界層效應	
Elasticity(3D)			
Elastodynamics (2D)			
Elastodynamics (3D)			
Plate (Statics)	蕭嘉俊 呂學育		28 th 力學會議, 2005 計算機在土木水利應用
Stokes flow			ASME, JAM appear
Plate (Dynamics)	李為民	共振分析	第十四屆振噪研討會(2006) JSV revision (indirect BIEM)
Plate(Dynamics)	李為民	Direct BIEM	
Plate(Dynamics)	李為民	CHEEF	

1. J. T. Chen, W. C. Shen and A. C. Wu, 2006, Null-field integral equations for stress field around circular holes under anti-plane shear, *Engineering Analysis with Boundary Elements*, Vol. 30, pp. 205-217.
2. J. T. Chen, W. C. Shen and P. Y. Chen, 2006, Analysis of Circular Torsion Bar with Circular Hole Using Null-field Approach, *Computer Modeling in Engineering & Science*, Vol. 12, No. 2, pp. 109-119.
3. J. T. Chen, C. C. Hsiao and S. Y. Leu, 2006, Null-field integral equation approach for plate problems with circular boundaries, *ASME Journal of Applied Mechanics*, Vol.73, No.4, pp. 679-693.
4. J. T. Chen and A. C. Wu, 2006, Null-field integral equation approach for piezoelectricity problems with arbitrary circular inclusions, *Engineering Analysis with Boundary Elements*, Accepted.
5. J. T. Chen and A. C. Wu, 2006, Null-field integral equation approach for the multi-inclusion problem under

anti-plane shear, ASME Journal of Applied Mechanics, Accepted.

6. J. T. Chen and P. Y. Chen, 2006, Bending of a perforated circular cylindrical cantilever using null-field integral formulation. Journal of Mechanics, Accepted.
7. J. T. Chen and W. C. Shen, 2007, Degenerate scale for multiply connected Laplace problems, Mechanics Research Communications, Vol.34, pp.69-77.
9. W. C. Shen, J. T. Chen and C. F. Lee, 2004, A study on Laplace problems of infinite plane with multiple circular holes, ICCM2004 Conference, Singapore.
10. C. T. Chen, I. L. Chen and J. T. Chen, 2005, Null-field equation approach for Helmholtz (interior and exterior acoustics) problems with circular boundaries, 九十四年電子計算機於土木水利工程應用研討會論文集, 台南。
11. W.C. Shen, P. Y. Chen and J. T. Chen, 2005, Analysis of circular torsion bar with circular holes using null-field approach, 九十四年電子計算機於土木水利工程應用研討會論文集, 台南。
12. C. C. Hsiao, S. Y. Leu and J. T. Chen, 2005, Solution of biharmonic problems with circular boundaries using null-field integral equations, 九十四年電子計算機於土木水利工程應用研討會論文集, 台南。
13. C. T. Chen, I. L. Chen and J. T. Chen, 2004, A new method for eigenproblems with circular boundaries, 中華民國力學學會第二十八屆全國力學會議論文, 台北。
14. C. C. Hsiao, Y. T. Lee and J. T. Chen, 2004, A new method for plate problems with circular boundaries, 中華民國力學學會第二十八屆全國力學會議論文, 台北。
15. W. C. Shen, K. H. Chen and J. T. Chen, 2004, A new method for Laplace equation in two-dimensional regions with circular holes, 中華民國力學學會第二十八屆全國力學會議論文, 台北。
16. An-Chien Wu, Wen-Cheng Shen and Jeng-Tzong Chen, 2005, Null-field integral equation for stress field around circular inclusions under anti-plane shear, 中華民國力學學會第二十九屆全國力學會議論文, 台北。
17. Po-Yuan Chen, Chia-Tsung Chen and Jeng-Tzong Chen, 2005, A semi-analytical approach for dynamic stress concentration factor of Helmholtz problems with circular holes, 中華民國力學學會第二十九屆全國力學會議論文, 台北。
18. Jeng-Hong Kao, Kue-Hong Chen and Jeng-Tzong Chen, 2005, Regularized meshless method for solving Laplace problems with holes, 中華民國力學學會第二十九屆全國力學會議論文, 台北。
19. A. C. Wu and J. T. Chen, 2006, A new approach for piezoelectricity problems with circular inclusions, 第八屆結構工程研討會, 日月潭。
20. P. Y. Chen and J. T. Chen, 2006, A semi-analytical approach for stress concentration of cantilever beams with multiple holes under bending, 第八屆結構工程研討會, 日月潭。
21. J. T. Chen, 2006, Recent development of the null-field integral equation approach for engineering problems with circular boundaries, Proceedings of Symposium on Advances of Mechanics in honor of President Robert R. Hwang, Keelung., 黃校長榮退研討會。
22. W. M. Lee, J. T. Chen and Y. T. Lee, 2006, Free vibration analysis of circular plates with multiple circular holes using indirect BIEMs, 第十四屆振動噪音研討會, 宜蘭。

1. J. T. Chen, Some recent results of the null-field integral equation approach for engineering problems with circular boundaries COMPUTATIONAL METHODS IN ENGINEERING, 2nd Asia-Pacific Int. Conf. on Comp. Meth. in Engrg (ICOME 2006), Nov. 14-16, 2006, Hefei, China.

2. Y. T. Lee, J. T. Chen and A. C. Wu, Torsional rigidity of a circular bar with multiple circular inclusions using a null-field integral approach, Computational Methods in Engineering, 2nd Asia-Pacific Int. Conf. on Comp. Meth. In Engrg (ICOME 2006), Nov. 14-16, Heifei, China

3. **A. C. Wu and J. T. Chen, 2006, Null-field approach for boundary value problems with circular inclusions, 中華民國力學學會第三十屆全國力學會議論文集, 彰化大葉。**
4. **P. Y. Chen and J. T. Chen, 2006, A semi-analytical approach for solving surface motion of multiple alluvial valleys for incident plane SH-waves 中華民國力學學會第三十屆全國力學會議論文集, 彰化大葉。**
5. **W. M. Lee, J. T. Chen and Y. T. Chen, 2006, Free vibration analysis of circular plates with multiple circular holes using indirect BIEMs, Journal of Sound and Vibration, Revised.**
6. **J. T. Chen and W. C. Shen, 2006, Null-field approach for Laplace problems with circular boundaries using degenerate kernels, Numerical Methods for Partial Differential Equations, Revised.**

EABE 2006 Shen:	nullfield-antiplane.pdf
CMES 2006 Shen	Null-field-torsion.pdf
ASME-JAM 2006 Hsiao 2006	ASME2006-plate.pdf
MRC 2006 Shen degenerate scale	MRC2007.pdf
ASME-JAM 2006 Wu inclusion	in Press
EABE 2006 Wu piezoelectricity	in Press
JoM 2006 P. Y. Chen beam bending	accepted