教育部學術獎申請資料目錄

另本為代表作論著集

教育部學術獎推薦書

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從　　事　　研　　究　　過　　程
申請人自台大土木系畢業後即進入台大應力所碩士班(第一屆)並領取國防獎助金，在洪宏基教授指導下完成碩士學位，培養出學術研究的興趣與奠定基本學術基礎及研究能力。畢業後旋即任職中山科學研究院火箭飛彈研究所結構應力分析小組，工作期間除完成上級交代任務外，基於對學術研究的興趣於工作之餘進行學術研究並發表論文。四年後由於對學術研究的熱愛，再返台大土木研究所完成博士學位。1994 年八月進入國立台灣海洋大學河海工程學系任教，投入教學研究工作展開學術之旅，負責工程數學之教學及計算力學研究工作，一路由副教授、教授到特聘教授而十年有成。期間努力指導研究生並建立力學聲響振動實驗室與網頁。 任教十餘年來，兼顧「教學與研究整合」與「基礎與應用並重」的考慮下，申請人孜孜不倦全心投入「計算力學」研究，尤其在「對偶邊界元素法」方面研究(參見附件一)，不曾稍怠，持續努力，追求學術研究之深度與卓越，迄今已發表 Refereed SCI 論文八十餘篇(參見附件二)，這些源源不斷的原著論文均在國際間著名學術期刊上發表，包括最近發表在 Proceedings of Royal Society London Series A, Int. J. Numerical Methods in Engineering, J. Amer. Soc. Acoustics, ASCE, ASME Appl. Mech. Rev, IEEE, Semiconductor Science and Technology, J. Micromechanics and Microengineering 等最受重視與著名的期刊，且範圍橫跨土木、機械、電子、電機與應用數學。所完成之學術著作皆能對計算方法提出創見，並且完成之後均能有完整之看法與說明，在一個主題之下作深入而有系統的探討。目前擔任四個國際期刊編委(參見附件三) ，與國際同儕間有相互密切的交流與合作，申請人自任教十餘年以來共出席參加國際性正式學術會議 16 次，發表國際會議報告 20 篇，並常獲邀在重要國際學術研討會做「特約邀請演講(plenary lecture)」及「專題邀請演講(keynote lecture)」(參見附件四)。論文被引用篇數高達兩百餘篇且 Review 過二十種國外學術期刊論文與兩本在 ASME 期刊之邊界元素法專書書評(參見附件五)。 由於申請人這些年來的不斷努力所展現的研究成果，已成為世界上計算方法領域中重要的研究者之一，可見已具相當影響力。詳細資料參見 *http://ind.ntou.edu.tw/~msvlab*。

對　學　術　之　重　要　貢　獻

學術研究的範疇，申請人從不自限。就幾個專業領域所做出貢獻茲分述於後：

1. 對偶多倒易法(dual multiple reciprocity method)：

申請人發現傳統的多倒易法在求解特徵問題時，其實是等效於複數型邊界元素法中核函數只取實部，因此會發生假特徵根與假模態的現象；且在含退化邊界問題的應用，此法亦有困難。因而提出對偶多倒易法，並針對實數多倒易法因遺失虛部訊息所導致無法求解外域與阻抗邊界條件作一探討。針對假根問題我們提出對偶多倒易法、實部對偶邊界元素法與虛部對偶邊界元素法，配合奇異值分解技巧，該方法可同時克服假根與退化邊界的兩個問題。本研究成果已在國際 Engineering Analysis with Boundary Elements, Computational Mechanics, J. Sound and Vibration 與中國工程學刊雜誌發表。1998 年於阿根廷所舉辦的國際第四屆計算力學會議，申請人的專題講座(keynote lecture)，即針對上述問題以對偶模式作一通盤性的回顧與未來研究方向作一報告。

2. 完備多倒易法(complete multiple reciprocity method)：

建構完備多倒易法，可說明傳統的實數域多倒易法與複數域邊界元素法的關係，經由此方法發現傳統的實數域多倒易法不能求解外域問題的原因，乃是其基本解不滿足 Sommerfield 輻射條件。而完備多倒易法提供級數型的虛部訊息，可同時解決含阻抗內域與外域問題。

3. 對偶邊界元素法：

對偶表示式模式(dual representation model)含對偶積分方程(dual integral equations)與對偶級數表示式(dual series representations)，係由洪宏基教授與申請人共同提出，而申請人則已應邀加入最新問世的邊界元素法電子期刊擔任編輯委員。另亦為中國工程學刊邊界元素法兩期專刊的客座編輯(Guest editor)。該期刊則已於 1997 年正式進入國際科學索引(Science Citation Index, SCI)。於 2001 年獲邀 Int. J. Boundary Element Communication 的編輯委員。而申請人於 1996 年亦被國際第五屆數值分析會議主席 Bainov 教授邀請進行一小時的專題演講(invited lecture)，講題為‘‘對偶表示式模式近來發展’’。申請人十餘年來在此方面的努力成果已受到國際注意，並且我們在 ASME 的 Applied Mechanics Reviews 也寫了一篇回顧性文章。近年來，我們以對偶積分式為架構，配合邊界元素法只對問題的邊界作離散，成功地應用在裂縫問題、極薄潛堤、薄翼理論、熱傳、滲流、外域、誤差評估、自適性網格、內域真假根、外域實虛根、退化尺度、MEMS Combdrive 與聲場等問題，在國內外期刊均已發表。在國外，更有多本專書係根據我們的對偶積分式寫成對偶邊界元素法(dual boundary element method)的程式以商用程式 — BEASY-CRACK 發行，現已普遍為英、美工業界所採用，主要係使用我們的方法可以節省工程師前處理的時

間，大大縮短工作時程。最近五年來對偶邊界元素法方面的文章，在國外知名期刊，更是不勝枚舉，不下數百篇，申請人在此方面的研究論文，已受到邊界元素法學者超過兩百多次引用。詳見網頁 *http://ind.ntou.edu.tw/~msvlab*。

4. 遲滯阻尼機制：

在時間域以相平面法求解遲滯阻尼(Bishop model)的動力反應，發表後曾被麻省理工學院(M. I. T.) 的 Crandall 教授在 Mech. Res. Comm. (Vol. 22, No.2) 期刊討論過。該文指出 Ried 模式為非線性，和傳統線性遲滯阻尼模式有所不同。此點點出現今有些文獻把 Bishop 阻尼模式曲解成傳統線性遲滯阻尼模式，這也是引發我們在時間域線性遲滯阻尼模式研究的動機，並一併克服該模式違背因果律的問題。無獨有偶地， 加州大學 Berkley 分校的 Kelly, Inaudi 與 Makris 教授也獨立地在從事這方面的研究，並在 ASCE-EM 與 Earthquake Engineering and Structural Dynamics 期刊發表和我們類似的研究成果。另外 Crane 教授亦在 ZAMM 期刊討論此阻尼模式違背因果律的問題。這些論點和我們在海大的研究成果頗有異曲同工之妙。學術界的這些研究成果，讓申請人深深覺得學術路上並不孤獨，此點也一直支持著申請人在學術研究的前沿繼續努力。時間域遲滯阻尼模式近年來已漸被國際學界所注意，申請人於 1997 年曾受國際數值分析與計算機應用會議的邀請進行一個小時的專題演講，即以此為報告主題。於 1999 年，申請人並與研究群郭世榮博士合作導得非線性遲滯阻尼系統強迫振動解，並已在 International J. Applied Mathematics 期刊發表。

5. 地震工程：

對偶級數模式由申請人與洪宏基教授共同提出後，已陸續成功地應用在地震工程，如多支承運動、地盤反算與散漫振動等問題。更重要的是，我們已看出發散積分的 Hadamard 主值觀念與發散級數(模態疊加)的有限部份觀念是相通的，也就是其數學本質是相同的。於此發現，我們成功地找到地盤反應反算的病態發散問題的有限部份(finite part)。此點除注入邊界元素法新的理論基礎外，可預期地，在未來這將是邊界元素法往後發展的一個重要方向。此研究成果已在世界知名地震工程期刊(Earthquake Engineering and Structural Dynamics)發表。而申請人也將持續在此方面投注更多研究人力與心力。模態疊加法在動力分析一直是個常用的方法，在耐震分析上更是不可或缺。過往以此法求解支承運動的動力反應時，均以 Mindlin(連續系統) 或 Clough-Penzien(離散系統)的擬靜態分離法來求解。申請人與洪宏基教授和葉超雄教授在地震工程所提出的模態反力法，可有效解決含支承運動的結構動力問題。本法除可免去計算擬靜力解外，更可快速求得模態參與係數，並連結了模態參與係數與模態反力的關係。根據此法，配合 UBC 設計規範的要求，已對各型結構物以模態分析時，所需的最少模態數作出建議。此研究成果已在 Communications in Numerical Methods 期刊發表。本技術已落實在海大，並可推廣到工程實務應用。

6. 有限元素法與邊界元素法的工程應用：

(a) 含應力消除塊固體火箭發動機分析、設計與實驗：

與呂學育先生合力完成含應力消除塊固體火箭發動機分析、設計與實驗。本研究提出一應力消除塊設計，可有效減低發動機儲存時的熱應力。並將工蜂火箭的使用年限，由原先的三個月延長到三年。本研究成果已在 Finite Element Analysis and Design 期刊發表。有關發動機裂縫成長路徑預測已在中國工程學刊發表。

(b) IC 電路蝕刻技術熱應力分析：

申請人與孫澄源教授、李子琦博士、全湘偉先生合力完成電路蝕刻技術 MSC/NASTRAN 熱應力分析，該研究對國內膨渤發展的電子封裝業，提供了一種跨學門合作模式的參考。本研究成果已發表於日本 JSME 期刊。

(c) 飛彈組件— V 型環疲勞裂縫成長分析與預測：

申請人與中科院全湘偉先生以對偶邊界元素法與有限元素法分析飛彈組件 — V 型環疲勞裂縫的應力強度因子。並對裂縫成長路徑作出預測，此文已在中國工程學刊發表。

7. 反算問題：

申請人以發散級數再生核的觀念，探討病態問題的本質，並成功應用在 Laplace、熱傳與波動方程式的反算問題。此研究成果已在 Applied Mathematical Modelling 期刊發表

8. 無網格法：

申請人以虛部核函數法作為徑向基底函數，發展一套求解任意聲場共振頻率與模態的無網格法。並發現韓國學者 Kang 等提出的無因次化動力影響函數(NDIF 法)為我們的特例。此點在 J. Sound and Vibration 已提出。另在 J. Acous. Soc. Amer.更提出一套去除假根的雙層勢能法。而申請人也將無網格法應用於求解多連通薄膜問題，此部分之成果也獲得國際期刊 Engineering Analysis with Boundary Element 接受刊登。最近，更將此法推廣到求解板振動問題，成果皆於中國工程學刊無網格法特刊與 International Conference on Computational Methods 國際會議於 Keynote lecture 發表。

9. 退化尺度問題：

以積分方程或邊界元素法求解 Dirichlet 邊界值問題時，當幾何情況很特別時，解會不唯一。此為數學問題，非物理可理解的。申請人根據退化核與循環矩陣解析其數學機制，提出解決之道並已推廣到多連通問題。本研究成果已在國際 Int. J. Numerical Methods in Engineering 與 Engineering Analysis with Boundary Elements 期刊發表。

10. 內域真假根與外域虛擬頻率問題：
對於多倒易法、實部或虛部邊界元素法處理特徵值問題，申請人以圓為例，解析探討發生假根的機制。並提出奇異值分解法的補充行與補充列技巧萃取真根與過濾假根(JSV, Comp. Mech.)。並利用 CHIEF/CHEEF 法可有效過濾假根此研究成果已在世界知名聲學期刊(JASA)發表。同時將此觀念推到外域聲場問題已在世界知名振動期刊(JSV)發表。

11. 邊界元素法中退化問題之統一理論：
申請人將邊界元素法中退化邊界、退化尺度、內域假根與外域虛擬頻率問題統一成秩減(rank deficiency)的數學現象。根據 Fredholm 二擇一定理與奇異值分解法的補充行與補充列技巧，提出一套了解與解決此類數值問題的統一理論。申請人將於 2002 年 7 月在維也納舉行四年一次的第五屆國際計算力學會議，對此主題為‘‘邊界元素法中退化問題’’，作半小時的專題講座(keynote lecture)。

12. 多連通聲場問題：
以複數型邊界元素法處理多連通問題會有假根問題，雖曾被 Kitahara 所提及，然而如何克服並未見。申請人分別在離散與連續系統的同心圓環空間以退化核、Fourier 級數與循環矩陣予以解析探討此假根現象。並利用 Burton 與 Miller 處理外域聲場虛擬頻率的想法來濾除假根。本文已在 Proc. Royal Soc. London Ser. A 分別就連續與離散系統發表兩篇論文。若使用基本解法(Method of fundamental solution) 亦會假根問題。此研究成果已被國際 Engineering Analysis with Boundary Elements 期刊所接受。根據在 Laplace 操作元成功的經驗，我們也順利推廣到 Biharmonic 操作元。研究成果現正送審中。

13. 電子元件上分析模擬應用：除了分析電子元的電子元件，例如：微帶結構、平行板電容器與多層介電質材料內含金屬片問題進行電位與電場強度分析，而相關設計參數(例如：間距、介電質組成配方…等)對元件物理行為之影響亦會加以探討。至於在微機電元件上分析件之基本電學操作原理外，也將對偶邊界元素法在靜電學分析模擬之精確度上進行驗證工作，更針對常見模擬應用層面方面，除了靜電學於微機電系統致動元件上之應用外，微機電系統分析設計流程與數值分析模擬之挑戰亦有所涉獵，至於對偶邊界元素法與有限元素法於微機電系統元件分析適用性之比較亦作了深入探討。此外，以對偶邊界元素法求解微機電系統梳狀電極之靜電場問題、間距與飄浮力之關係探討、間距暨指寬比及行進距離與驅動力之關係探討、指寬比暨深寬比與飄浮負荷間之關係探討…等，均有相當完整之分析研究與探討成果。本研究成果已在國際知名 IEEE, J MEMS, JMM … 期刊發表。

14. Trefftz 法與基本解法的數學等效性已被證明。本研究成果已在國際知名 Computer Math. & Applications 期刊修改中。
15. 邊界元素法針對大尺度問題在桌上型電腦有其困難。我們以快速多重極法(Fast multipole method)予以處理，在外域聲場與水波問題均已應用成功。本研究成果已在國際知名 Engineering Analysis with Boundary Elements 期刊刊登。

重要學術表現

(一) 學術研究成果：
81 篇 SCI 論文分別在 33 種不同期刊發表，包括 Proc. Royal Society London Series A, IEEE, JASA, IJNME 等一流期刊。陳正宗 特聘教授並擔任四個國際期刊與四個國內期刊編輯委員並擔任十餘個國際會議執委。

(二) 對於邊界元素法之領域有顯著之貢獻，本研究室已成為國際學術界探討此法之最重要研究室之一。已超過兩百篇論文曾引用申請人之論著。

(三) 出席參加重要國際學術會議，總共出席 16 次，平均每年參加一至兩次國際學術會議，並發表重要學術論文，總共發表 20 篇（oral presentation 為主）。此外，最近 4 次特別接受主辦單位邀請出席由國外主辦的重要國際會議，並發表特約邀請演講(plenary lecture)」及「專題邀請演講(keynote lecture)」，或會議主持人(詳見附件四)。(四) 出席並發表論文於國內重要學術團體年會之學術會議，總共發表 66 篇。並經常受邀至國內大學數學系、土木系、造船系、應力所、機械系、海下技術所、系統工程系、應用地球物理所（台灣大學、中山大學、成功大學、海洋大學、中央大學、中正大學、清華大學、中原大學、高雄應用科技大學、中華技術學院等）與業界單位(中興顧問社)進行專題演講國內重要專題學術研討會發表論文。

(四) 與國際著名學者同儕間有密切之交流與合作，已有多位國際著名學者曾至本研究室訪問。

(五) 目前出版專書五本，其中兩本(邊界元素法與有限元素法)分獲貴部研究著作甲等獎(研究生組與社會青年組)。

(六) 擔任四個國外與四個國內學術期刊編輯委員。經常受邀審查國際學術期刊之論文達二十種以上期刊。

(七) 經常受邀擔任國科會工程處土木學門之計畫複審委員。

(八) 經濟部中央標準局之評審委員。

(九) 擔任振噪學會理事。

註： 相關文件請詳見網頁 http://ind.ntou.edu.tw/~msvlab。

曾　獲　得　之　學　術　獎　勵　情　形
✚ 第一屆海洋大學特聘教授(2004~2007) ✚ 國科會傑出研究獎(1999~2005) ✚ 第一屆國科會吳大猷先生紀念獎(2002~2005) ✚ 第三屆國科會碩士(林盛益)論文指導獎(2003) ✚ 第二十七屆力學會議學生(吳清森)論文指導獎(2003) ✚ 有限元與邊界元國際會議 Keynote lecture(2003) ✚ 華人無網格法會議 Invited lecture(2003) ✚ 俄羅斯 BEM-FEM 國際會議 Plenary lecture(2003) ✚ 計算數學年會 Plenary lecture(2003) ✚ 第二十六屆力學會議學生(李應德)論文指導獎(2002) ✚ 世界計算力學會議 Keynote lecture(1998, 2002) ✚ 第一屆海洋大學優良教師(2001) ✚ 電子計算機於土木水利工程應用研討會學生(陳義麟)論文指導獎(2000) ✚ 國科會甲等獎(1995~1998) ✚ 國際計算機應用會議 Invited lecture(1996, 1997) ✚ MSC 使用者會議最佳論文發表獎(1995) ✚ 力學會議最佳論文獎(1992)

重要之學術研究成果	代表著作	1. J. T. Chen, S. R. Lin and K. H. Chen, 2005, Degenerate scale for Laplace equation using the dual BEM, Int. J. Numer. Meth. Engng., Vol.62, No.2, pp.233-261. (SCI and EI) 2. J. T. Chen, and K. H. Chen, 2004, Applications of the dual integral formulation in conjunction with fast multipole method in large-scale problems for 2-D exterior acoustics, ngineering Analysis with Boundary Elements, Vol.28, No.6, pp.685-709. (SCI and EI) 3. J. T. Chen, I. L. Chen. K. H. Chen, Y. T. Yeh and Y. T. Lee, 2004, A meshless method for free vibration of arbitrarily shaped plates with clamped boundaries using radial basis function, Engineering Analysis with Boundary Elements, Vol.28, No.5, pp.535-545. (SCI and EI) 4. J. T. Chen, L. W. Liu and H.-K. Hong, 2003, Spurious and true eigensolutions of Helmholtz BIEs and BEMs for a multiply-connected problem, Royal Society London Series A, Vol.459, No.2036, pp.1891-1925. (SCI and EI) 5. J. T. Chen, S. R. Lin, I. L. Chen and S. W. Chyuan, 2003, Eigenanalysis for membranes with stringers using conventional

		BEM in conjunction with SVD technique, Computer Methods in Applied Mechanics and Engineering, Vol.192, No.11-12, pp.1299-1322. (SCI and EI) 6. J. T. Chen, S. R. Kuo and G. H. Lin, 2002, Analytical study and numerical experiments for degenerate scale problems in the boundary element method for two-dimensional elasticity, Int. J. Numer. Meth. Engng., Vol.54, No.12, pp.1669-1681. (SCI and EI) 7. J. T. Chen, J. H. Lin, S. R. Kuo and S. W. Chyuan, 2001, Boundary element analysis for the Helmholtz eigenproblems with a multiply-connected domain, Proc. Royal Society of London Ser. A, Vol.457, No.2014, pp.2521-2546. (SCI and EI) 8. J. T. Chen, 2000, Recent development of dual BEM in acoustic problems, Computer Methods in Applied Mechanics and Engineering, Vol.188, No.3-4, pp. 833-845. (SCI and EI) 9. J. T. Chen and H.-K. Hong, 1999, Review of dual boundary element methods with emphasis on hypersingular integrals and divergent series, Applied Mechanics Reviews, ASME, Vol.52, No.1, pp.17-33. (EI) 10. J. T. Chen, H.-K. Hong, C. S. Yeh and S. W. Chyuan, 1996, Integral Representations and Regularizations for a Divergent Series Solution of a Beam Subjected to Support Motions, Earthquake Engineering and Structural Dynamics, Vol.25, No.9, pp.909-925. (SCI and EI) 11. J. T. Chen, H.-K. Hong and C. S. Yeh, 1995, Modal Reaction Method for Modal Participation Factors in Support Motion Problems, Communications in Numerical Methods in Engineering, Vol.11, No.6, pp.479-490. (SCI and EI) 12. H.-K. Hong and J. T. Chen, 1988.06, Derivations of Integral Equations of Elasticity, ASCE Journal of Engineering Mechanics, Vol.114, No.6, pp.1028-1044. (SCI and EI)
	參考著作	詳見著作目錄

推薦者對候選人之評語：

1. 陳正宗教授於民國八十三年八月應聘至本校任教。八十七年八月升任正教授。九十三年八月獲聘海洋大學特聘教授。表現非常優異。其在計算力學之學術研究成果已在國際學術界佔有舉足輕重的地位。
2. 陳教授以校為家，教學認真，盡心盡力，極受學生愛戴並為本校第一屆優良教師。過去數年中在十七個研究計畫中擔任主持人，主導取得研究經費逾千萬元，指導博碩士生二十餘人，其所指導學生畢業後目前分別任職我國之工程界如中華、中鼎與亞新工程顧問公司、稻江管理學院及高雄海洋技術學院與陸軍官校等研究教學單位，為國家社會訓練多位所需之高級專業領導人才。
3. 1998-2001 年擔任本校海洋學刊編輯，於 1999 年將該學刊提升到國際 EI 認証水準，提高海洋大學專屬期刊在國際學術界的能見度。
4. 為培養大學生獨立自主，以研究工作訓練其統合各個專業領域之知識，陳教授於每年暑假招收大學部同學，給予團隊及基礎研究訓練，賦予參與研究工作之機會。多數同學於初步訓練完成後，均積極且持續參與研究工作兩年以上，這些同學在陳教授之指導下均有傑出表現。
5. 1994-2004 年在海洋大學河海工程學系所指導之博碩士論文均能在國際 SCI 期刊發表論文，實屬不易。
6. 為確立研究團隊之研究方向、目標與成果，除在國際期刊中發表 SCI 論文八十餘篇外，並可與我國之高科技工業需求相配合，陳教授積極將其學術研究成果應用在產業界，如 IDF 飛機飛行負荷分析、天劍掛彈 V-band 裂縫成長分析、X-光罩蝕刻技術熱應力分析、工蜂火箭發動機壽限預估與 MEMS 電子元件分析設計等，均有不錯的成果。
7. 在海洋大學組成計算力學研究團隊，建立學術網站、帶動學校學術風氣，成果顯著。
8. 陳教授所發表之學術研究論文在 Web of Science 紀錄中受國際期刊引用超過二百多次，研究成果已受國際學術界重視。
9. 陳教授目前擔任四個國內與四個國外期刊的編輯委員、顯示其學術研究已普或同儕之高度肯定。
10. 陳教授於 1999 與 2002 年連獲國科會傑出研究獎並為第一屆吳大猷獎得主，為海洋大學爭光。申請人之得獎在在的提升本校士氣。

推薦者：黃榮鑑

服務機構：海洋大學

職稱：校長

中華民國 2004 年 12 月 27 日

附註：

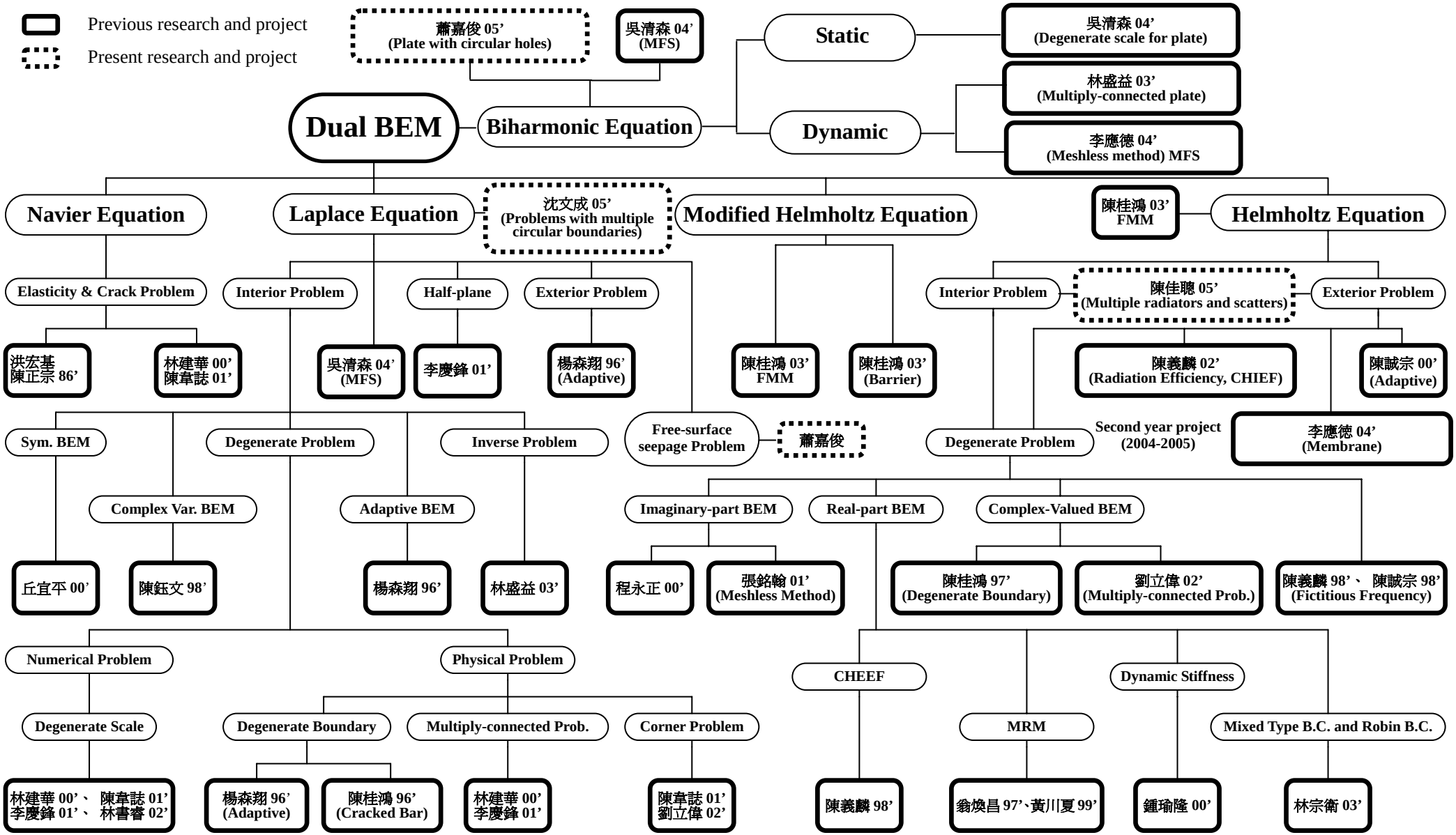
一、本推薦書乙式五份，請以 A4 橫式填列。

二、重要之學術研究成果，請擇要填報，並送繳具有代表性，足以顯現個人在學術上之重要貢獻及傑出成就之著作及文件影本，除專書外，不同之代表著作儘可能裝訂成一冊，並請檢送著作乙式五套，俾利審查。

三、學術獎須贈對象為中華民國國民；外籍人士及持外僑居留證者，請勿推薦申請。

四、本表格欄位如不敷使用，請自行調整之。

附件一. Research topics of NTOU / MSV LAB (1984-2004)

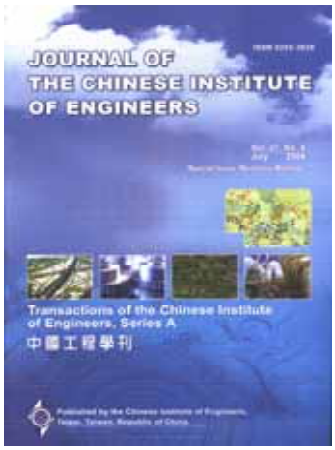
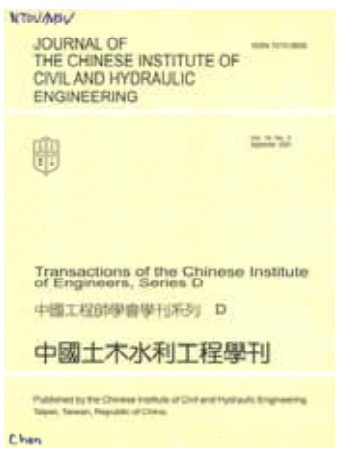
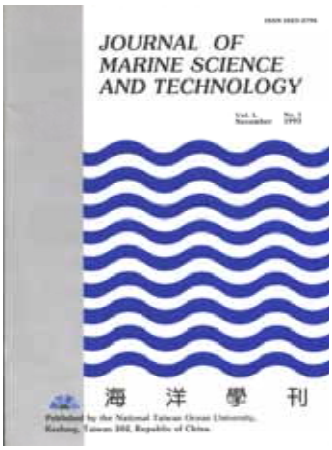
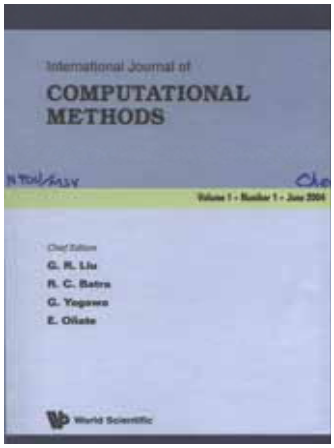


附件二: 陳正宗教授發表期刊一覽表(1984-2004)

	Journal	SCI	EI	Impact factor	Cited half-life	篇數
1	IEEE J. MEMS	√	√	2.759	4.6	1
2	J. Micromechanics & Microengineering	√	√	1.699	4.5	1
3	Int. J. Num. Meth. Engng.	√	√	1.691	9.6	3
4	Semiconductor Sci. Tech.	√	√	1.603	6.1	1
5	J. Acoust. Soc. Amer.	√	√	1.398	99.9	2
6	Comp. Meth. Appl. Mech. Engng.	√	√	1.252	7.9	3
7	Royal Soc. Lond. Ser. A.	√	√	1.21	99.9	2
8	Thermochimica Acta	√	√	0.956	8.2	1
9	IEEE Circuits Devices	√	√	0.955	5.4	1
10	Engineering Analysis with Boundaery Elements	√	√	0.951	5.3	16
11	IEEE Comp. Sci. Eng.	√	√	0.909	3.6	1
12	Finite Element Analysis and Design	√	√	0.843	6.4	4
13	Computational Mechanics	√	√	0.818	6.0	5
14	Earthq. Eng. Str. Dyn.	√	√	0.734	9.1	1
15	J. Sound & Vibration	√	√	0.724	9.3	7
16	ASCE (J. Eng. Mech.)	√	√	0.719	99.9	1
17	Engineering Structures	√	√	0.717	4.5	1
18	ASCE Waterway, Port, Coast and Ocean Engineering	√	√	0.652	8.4	1
19	Computers & Structures	√	√	0.634	9.6	2
20	Wave Motion	√	√	0.629	9.2	1
21	Microelectronics J.	√	√	0.565	3.8	1
22	Engineering Computations	√	√	0.536	8.2	1
23	Structural Engineering Mechanics	√	√	0.468	3.6	1
24	Applied Acoustics	√	√	0.464	7.0	1
25	Communications in Numerical Methods in Engineering	√	√	0.450	5.8	2
26	Soil Dynamics and Earthquake Engineering	√	√	0.435	5.3	1
27	Applied Mathematical Modelling	√	√	0.403	8.3	1
28	Advances in Engineering Software	√	√	0.325	6.1	6
29	Mech. Res. Comm.	√	√	0.311	6.4	6
30	中國工程學刊	√	√	0.295	4.4	3
31	JSME Series A	√	√	0.250	6.7	1
32	Proc. Inst. Mech. Eng. Part C	√	√	0.212	5.8	1
33	Kuwait J. Scie. Engng.	√	√	0.148		1
34	Applied Mechanics Reviews(ASME)		√			1
35	國科會自然工程彙刊		√			1
36	力學期刊		√			1
37	中國機械工程學刊		√			1
38	海洋學刊		√			2
39	Int. J. Comp. Num. Anal. Appl.					1
40	Int. J. Appl. Math.					2
41	Boundary Elements Abstracts					1
42	中國土木水利工程學刊					2
43	土木工程技術					2
合計		81	85			95

(本表數據取自 2003 年SCI 與EI 索引資料) (File:sci03.te, Dec.20/2004)

附件三: 陳正宗 教授 國內外各個期刊編委

Domestic journals		Journal of the Chinese Institute of Engineers		Journal of the Chinese Institute of Civil and Hydraulic Engineering
		Journal of Marine Science and Technology		亞太工程科技學報
International journals		Computer Materials and Continua		Electronic Journal of Boundary Elements
		International Journal of Computational Methods		Boundary Element Communications

附件四:Records of invited lectures

Plenary lectures:

Year	Conference	Place	Invited by
Sep., 2003	BEM-FEM 2003	St. Petersburg, Russia	Prof. A. M. Linkov
June., 2003	Annual Conference of Comp. Math.	Hsin-Chu, Taiwan	Prof. M. G. Lee

Keynote lectures:

Year	Conference	Place	Invited by
Dec., 2004	ICCM 2004	Singapore	Prof. G. R. Liu
July., 2004	ICCES'04	Madeira, Portugal	Prof. S. N. Atluri
July., 2003	ICCES'03	Corfu, Greece	Prof. S. N. Atluri
Sep., 2003	全球華人邊界元素與無網格會議	秦皇島,中國	Prof. Z. H. Yao
July., 2002	WCCM 5	Vienna, Austria	Prof. H. A. Mang
June., 1998	WCCM 4	Buenos Aires, Argentina	Prof. S. Idelsohn

Invited lectures:

Year	Conference	Place	Invited by
July., 2003	Workshop on Meshless Methods	Lisbon, Portugal	Prof. C. J. S. Alves
Sep., 2002	Beteq 2002	Beijing, China	Prof. Z. H. Yao
Aug., 1997	NUM97	Plovdiv, Bulgaria	Prof. D. Bainov
Aug., 1996	NUM96	Plovdiv, Bulgaria	Prof. D. Bainov

附件五: 陳正宗教授審查過的學術期刊

期刊論文與升等論文審查:

References

[1] Applied Mechanics Review (Book review)

[2] Proceedings of Royal Societ London Series A

[3] Mechanics Research Communications

[4] Communications in Numerical Methods in Engineering

[5] Electronic Journal of Boundary Elements

[6] J. Sound and Vibration

[7] Computers Methods in Applied Mechanics and Engineering

[8] Computers and Structures

[9] Journal of American Society of Acoustics

[10] Finite Element Analysis and Design

[11] Advances in Structural Engineering

[12] Journal of Marine Science and Technology

[13] Geotechnical Engineering Journal

[14] Engineering Analysis with Boundary Elements

[15] Engineering Computation

[16] Computer Modeling in Engineering and Science

[17] Engineering Structures

[18] Int. J. Numer. Meth. for Heat and Mass Flow

[19] Proceedings of Mathematical Society of Endiburgh

[20] Computers, Materials and Continua

[21] 中國工程學刊

[22] 力學學刊

[23] 海洋學刊

[24] 中國土木水利工程學刊

[25] 中國機械工程學刊

[26] 中國造船與輪機工程學刊

[27] 淡江大學亞學報

[28] 中原學報

[29] 中華學報

[30] 國科會獎勵案、專題計劃複審委員與專題計劃審查

[31] 教育部學審會升等案與教育部博士生出國案

[32] 交大、成大、中正、中央、淡江升等與聘任案

【存檔: e:/ctex/course/reviewJ.te】【建檔: Dec./20/2004】

Appendix 6 Curriculum Vitae of J. T. Chen

Jeng-Tzong Chen, Ph.D., Prof.
Office: Room 405, Harbor and River Engineering (HRE) First Hall, National Taiwan Ocean Univesity
Lab: Room 306, Harbor and River Engineering (HRE) Second Hall, National Taiwan Ocean Univesity
Permanent address : P.O. Box. 7-59, Keelung, Taiwan, Republic of China
Permanent address : P.O. Box. 23-36, Taipei, Taiwan, Republic of China
TEL: (O) 886-2-24622192-6140 or 6177 (H) 886-2-24697018
FAX:886-2-24632375
Cell phone:0935750251
E-mail: jtchen@mail.ntou.edu.tw
URL: http://ind.ntou.edu.tw/∼msvlab

EDUCATION

1994 Ph.D., Department of Civil Engineering, National Taiwan University
1986 M.S. , Institute of Applied Mechanics, National Taiwan University
1984 B.S. , Department of Civil Engineering, National Taiwan University

EXPERIENCES

2004,9 ∼ present	Distinguished Professor, Department of Harbor and River Engineering, National Taiwan Ocean University
1998,8 ∼ 2004,8	Professor, Department of Harbor and River Engineering, National Taiwan Ocean University
1994,8 ∼ 1998,7	Associate Professor, Department of Harbor and River Engineering, National Taiwan Ocean University
1990,9 ∼ 1994,6	Ph.D Graduate Student, Department of Civil Engineering, National Taiwan University
1986,8 ∼ 1990,8	Research Engineer, Stress Analysis Group of Structure Section, Missile & Rocket Systems Research Division, Chung Shan Institute of Science and Technology, Lung-Tan, Taiwan.
1983,6 ∼ 1983,9	Assistant Editor, Sho-Yuan Publisher, Tapei, Taiwan, R.O.C.
1982,6 ∼ 1982,9	Mathematics Teacher of Mato Junior School, Mato, Taiwan, R.O.C.

AWARDS

- Distinguished Professor of National Taiwan Ocean University (2004 $\sim$ 2007)
- Outstanding Research Award of NSF Taiwan (1999 $\sim$ 2005)
- Wu Ta-You Research Award (2002 $\sim$ 2005)
- Paper award of the best presentation of MSC TUC95 Conference
- Paper award of 16^{th} National Conference on Theoretical and Applied Mechanics
- Book award of Ministry of Education of R.O.C.
- — MSC/NASTRAN Primer and Applications (in Chinese)
- — Boundary Element Mthod (in Chinese)

SPECIALTIES

- Vibration and Acoustics
- Structural Analysis
- FEM, BEM and meshless method
- Inverse problem
- Damping and control
- Aging Evaluation
- Fracture & Fatigue
- MSC/NASTRAN, SDRC I-DEAS, CADKEY, MATHEMATICA, BEASY-CRACK
- Solid Propellant Analysis
- Aerodynamics

EDITORIAL SERVICE

- Area Editor of Journal of Chinese Institute of Civil and Hydraulic Engineering
- Guest Editor of Journal of Chinese Institute of Engineers on Special Issue of BEM
- Guest Editor of Engineering Analysis with Boundary Elements on Special Issue of dual BEM and hypersingularity
- Member of Editorial Board of Journal of Computers, Materials and Continua
- Member of Editorial Board of International Journal of Computational Methods
- Member of Editorial Board of International Journal of Boundary Element Communications
- Member of Editorial Board of Electrical Journal on Boundary Element Method
- Member of Editorial Board of Journal of Chinese Institute of Engineers
- Member of Editorial Board of Journal of Marine Science and Technology
- Member of the Advisory Board of WCCM 2006
- Member of the Advisory Board of ICOME 2003
- Member of the International Scientific and Industrial Committee of ECCOMAS Thematic Conference on Meshless Methods
- Member of the International Scientific and Industrial Committee, 4th European Congress on Comp. Meth. Appl. Sci. Engng.
- Member of the International Scientific Advisory Committee of Boundary Element Techniques, 2001, 2002, 2003, 2004
- Member of the International Scientific Advisory Committee of IABEM 2004
- Member of the International Scientific Advisory Committee of ICCM 2004
- Member of the International Scientific Advisory Committee of BETECH 2001 and 2003 (15th) in Detroit
- Member of the International Scientific Advisory Committee of BEM 23

- Member of the International Scientific Advisory Committee of ICES 2001 conference
- Member of Organization and Scientific Committees of International Colloquium on Numerical Analysis and Computer Science with Applications
- Member of Organization and Scientific Committees of International Colloquium on Differential Equations
- 中國土木水利工程學刊常務編輯
- 中國工程中邊界元素法會議暨全球華人無網格會議國際科委
- 亞太工程學報編輯委員
- 中華民國力學學會出版委員會委員
- 中華民國振動噪音學會學術委員
- 經濟部中央標準局專利審查委員

MEMBERSHIP

- Phi Tau Phi Member
- ISBE Member
- Member of Chinese Institute of Engineers
- Member of Chinese Society of Vibration and acoustics
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Health Condition : Excellent

SUMMARY OF RECENT RESEARCH RESULTS

Degenerate-boundary problem using the dual BEM

The dual BEM for the degenerate-boundary problem was successfully applied to the Helmholtz equation (membrane with stringers) and the modified Helmholtz equation (water wave with breakwaters). The mathematical structure of dual BEM was constructed by using the Calderon projector and pseudo-differential operator. In addition, the crack growth in solid propellant grain and in V-band structure of missile was solved by using the dual BEM. Based on our dual formulation, WIT (Wessex Institute of Technology) has developed a commercial code BEASY-CRACK for industry use. The company claimed that more than 50 countries used the program of dual BEM. In 1998, the PI has delivered a keynote lecture on this topic in the 4th World Congress on Computational Mechanics in BuenosAires (WCCM4). In 2003, the application to electrostatic problems was published by IEEE Journal of Computing in Science and Technology. In 2004, applications to electronic devices and MEMS were published in the six papers which appeared in the Journals of IEEE, J. of MEMS and JMM, ...*etc.*

Degenerate-boundary problem using the conventional BEM without hypersingularity and multi-domain approach

The eigensolutions for membranes with stringers have been solved successfully in a single domain by using the conventional BEM in conjunction with the SVD technique. Neither multi-domain approach nor the hypersingular formulation are required. By adopting the SVD technique for rank revealing, the nontrivial boundary mode can be detected by finding the successive zero singular values which are not due to the degeneracy of degenerate boundary. The goal of solving the eigenproblem in a single domain without hypersingularity was achieved. This paper has appeared in CMAME, 2003.

Degenerate scale problem in BIEM/BEM

The mechanism why the degenerate scale occurs in BIEM/BEM was studied analytically and numerically by using the degenerate kernels, Fourier series and circulants, respectively. The Laplace, biharmonic and Navier equations were considered. In addition, simply-connected and multiply-connected problems were solved successfully. Several regularization techniques were adopted to avoid the problem of nonunique solution. In 2002, the PI has delivered a keynote lecture on this topic in the 5th World Congress on Computational Mechanics in Vienna (WCCM5). Also, an invited lecture was delivered in Beteq 2002 (Beijing). For the degenerate scale of torsion problem, one IJNME paper will appear in 2005.

Free terms of BIEM/BEM

The free terms of boundary integral equations (BIEs) for the Laplace, Helmholtz and biharmonic of 2-D and 3-D cases were derived by using the bump contour method and Taylor expansion and five papers have been published. The one for the biharmonic case was accepted by the EABE journal in 2004.

Large-scale problem using DBEM in conjunction with the fast multipole method

The large-scale problem for exterior acoustics was solved efficiently by employing the dual integral formulation in conjunction with the fast multipole method to accelerate the construction of influence matrix. The singular and hypersingular integrals are transformed into the summability of divergent series and regular integrals. Not only CPU time but also storage of memory were reduced in comparison with BEM without employing FMM concept. One EABE paper was published in 2004.

Adaptive BEM

Based on the hypersingular equation as a check for the residual, the adaptive BEM was successfully applied to solve the Laplace and Helmholtz equations. The proposed method is more efficient than the adaptive FEM. One CMAME paper was published in 2002.

Spurious eigenvalues in simply-connected problems using BIEM/BEM

It was found that spurious eigenvalues of interior acoustics appear in the real-part, imaginary-part BEMs and MRM since information is lost. The regularization techniques including SVD updating term and updating document, domain partition, dual method, complete MRM and CHEEF method, were successfully employed to deal with the spurious-eigenvalue problem.

In 2003, we extended the 2-D acoustic (membrane) to plate problem and employed the SVD updating technique, Burton & Miller method, CHEEF method to filter out the spurious eigenvalues. By choosing the valid CHEEF points, we can supress the occurrence of the spurious eigenvalues for the clamped plate in the real-part or imaginary-part BEM. We also demonstrated the existence of spurious and true eigenvalues of a rod and a circular cavity and extended it to the mixed-type boundary condition. Then, we find the position where the spurious eigenvalues occur are the same with those of the Dirichlet and Neumann boundary conditions. It was also found that the spurious eigenvalues are dependent on the method while the true ones are concerned with the type of boundary condition. A series of SCI papers have been published by our group.

Spurious eigenvalues in multiply-connected problems using BIEM/BEM

For the 2-D multiply-connected acoustic problem, spurious eigenvalues occur even though the complex-valued BEM is employed to solve the eigenproblem. We utilized the Burton and Miller approach to suppress the appearance of spurious eigenvalues. In addition, CHIEF method was also utilized to deal with the problem. Both the continuous and discrete systems were considered. Two papers were published in the Proceeding of Royal Society London Series A (2001, 2003). For the multiply-connected acoustic problem, we use the complex-valued BEM to derive the eigensolution in the continuous and discrete systems. The occurrence of spurious eigenequation only depends on the formulation instead of the specified boundary condition, while the true eigenequation is independent of the formulation and is revalent to the specified boundary condition. In addition, we used the SVD updating technique, the Burton & Miller method and the CHIEF method to supress the occurrence of the spurious eigenvalues successfully. The extension to plate problems is now under review for possible publications of IJNME journal.

Spurious eigenvalues in multiply-connected problems using MFS

For the eigenproblem, MFS provides an alternative to determine the eigenvalues. It is also found the spurious eigenvalues occur for multiply-connected cases in the MFS as well as BIEM/BEM. For the membrane case, one EABE paper is now in press. For the plate case, a keynote lecture in ICCM 2004 conference was delivered by the principal investigator.

Equivalence of the Trefftz method and MFS

Trefftz method and method of fundamental solutions (MFS) belong to kinds of meshless methods, their mathematical relation has not been studied to our knowledge. Based on the degenerate kernels and theory of circulants, the mathematical equivalence between the Trefftz method and MFS was derived. This paper is now in revision for the Int. J. of Computer & Mathematics with Applications. One of our students, C. S. Wu, has won the student competition award on this topic in the 27^{th} National Coference of Theoretical and Applied Mechanics in 2003.

Fictitious frequency in exterior acoustics

The occuring mechanism why fictitious frequency appears in the BEM for exterior acoustics was understood analytically and numerically by using the degenerate kernel, the Fourier series and circulants. Both the radiation and scattering problems were solved free of irregular frequencies by using regularization techniques. In 2003, we proposed a new concept of modal participation factor for the numerical instability and applied it to the acoustic problem in the

MRC journal. In addition, the fictitious frequency embedded in the singular or hypersingular integral equations has been discussed in MRC. We also studied the Helmholtz equation with the mixed-type boundary condition in a semi-infinte rod and a circular radiator. Good agreement was made. Then, we found the position where the fictitious frequency occur is the same with those of the Dirichlet and Neumann boundary conditions. Although the irregular values occur at the same positions for BEM as they appear in the problems with the Dirichlet, Nuemann and mixed-type bounadry conditions in BEM, they do not appear as obviously as our semi-analytical approach because of the influence of modal participation factor.

Meshless method

Based on the imaginary-part kernel in the dual formulation, we have developed a new meshless method for determining 2-D and 3-D acoustic modes. The NDIF (NonDimensional Influence Function) method developed by Kang *et al.* is only our special case. The extension to plate vibration was also developed recently. One of our students, Y. T. Lee, has won the student competition award on this topic in the 26th National Conference of Theoretical and Applied Mechanics in 2002. In 2003, we extended the meshless method for free vibration with arbitrary shape successfully. The paper has appeared in EABE 2004. Another kind of meshless method (MFS: Method of Fundamental Solutions) was utilized to solve the eigenproblem of multiply-connected problems. Spurious eigenvalues also occur and can be suppressed by employing the regularization techniques. An invited lecture in Global Chinese Workshop on Meshless Method was delivered for our recent development of meshless method.

A unified point of view for rank deficiency in BIEM/BEM

Degenerate boundary, degenerate scale, corner, spurious eigenvalue and fictitious frequency all stems from the rank-deficiency problem in deriving the influence matrix. A unified formulation for treating the nonuniqueness problem was proposed by using regularization techniques. The principal investigater has delivered two plenary lectures on this topic in Annual Conference of Comp. Math. (Hsin-Chu 2003) and BEM-FEM (St. Petersburg, 2003) International Conference.

Hysteretic damping

Both the free vibration and forced vibration of a hysteretic damping were solved analytically and numerically in the phase plane. The casual effect and the Hilbert transform pair were also examined. It is interesting that Prof. Crandall in MIT discussed our paper in this area. Kelly, Inaudi and Makris also independently utilized the same formulation of our model. The PI has delivered a one-hour invited lecture on this topic in the 7th Colloquium on Numerical Analysis and Computer Science with Applications in Bulgaria.

FEM applications

The FEM was applied to study the service life of the solid rocket motor and lithography of X mask for IC package.

Divergent series

We constructed the relationship between the hypersingular and divergent series. It is found that the divergent series appears in modal dynamics for the support-motion problems. Two

regularization techniques for the summability of divergent series, Cesaro sum and Stokes' transformation, were successfully applied to find the finite sum.

Inverse problems

The inverse problems of Laplace equation, heat equation and wave equation with overspecified boundary conditions were solved in a unified manner by using the L-curve concept. The truncated SVD technique was also utilized to Cauchy problem by using BEM. This paper has appeared in the Journal of Appl. Math. Modelling.

For our serial works on the dual BEM, Appendix 1 shows the development of DBIM and related applications. During the past years, more than 223 papers and books have cited our research articles. The number of SCI papers published during 1986-2004 by Prof. J.T. Chen is shown in Appendix 2. Prof. J. T. Chen is now the member of editorial board for four international journals and four domestic journals as shown in Appendix 3. During the ten years, several lectures including plenary lectures, keynote lectures and invited lectures were delivered in Appendix 4. Also, the applicant has reviewed ASME books and SCI papers for 32 different journals as shown in Appendix 5.

For the detail information and documents, please visit *http://ind.ntou.edu.tw/∼msvlab*.

PUBLICATIONS

(A) Book Publications

1. 王聲榕, 陳正宗等, 1988, CADKEY 使用入門, 全友科技圖書公司印行, 448面.
2. 陳正宗, 林信立, 韓文仁, 邱垂鈺與秦無忝編著, 1989, MSC/NASTRAN 使用入門與工程應用, 良宜圖書公司, 台北, 500面, 本書獲教育部社會組青年研究甲等獎.
3. 陳正宗, 1990, 邊界元素法, 第1版, 良宜出版社, 台北, 329面.
4. 陳正宗, 洪宏基, 1992, 邊界元素法, 第2版, 新世界出版社, 台北, 484面, 本書獲教育部研究生組青年研究甲等獎.
5. 陳正宗, 林信立, 邱垂鈺, 黃志勇與全湘偉, 1996, 有限元素分析與工程實例—MSC/ NASTRAN 軟体應用, 700 面, 北門圖書, 台北.

(B) Refereed Papers

1. H.-K. Hong and J.T. Chen, 1988.02, Generality and Special Cases of Dual Integral Equations of Elasticity, Journal of the Chinese Society of Mechanical Engineers, Vol.9, No.1, pp.1-9.
2. Hong-Ki Hong and Jeng-Tzong Chen, 1988.06, Derivations of Integral Equations of Elasticity, ASCE Journal of Engineering Mechanics, Vol.114, No.6, pp.1028-1044.
3. Jeng-Tzong Chen and Hong-Ki Hong, 1988, Application of Integral Equations with Superstrong Singularity to Steady State Heat Conduction, Thermochimica Acta, Vol.135, pp.133-138.

4. J. T. Chen and H.-K. Hong, 1993, On the Dual Integral Representation of Boundary Value Problem in Laplace Equation, Boundary Elements — Abstracts and Newsletter, Vol.4, No.3, pp.114-116.

5. J. T. Chen, H.-K. Hong and S. W. Chyuan, 1994, Boundary Element Analysis and Design in Seepage Flow Problems with Sheetpiles, Finite Elements in Analysis and Design, Vol.17, No.1, pp.1-20.

6. L. Y. Chen, J. T. Chen, C. H. Chen and H.-K. Hong, 1994, Free Vibration of a SDOF System with Hysteretic Damping, Mechanics Research Communications, Vol.21, pp.599-604.

7. J. T. Chen and H.-K. Hong, 1994, Dual Boundary Integral Equations at a Corner Using Contour Approach around Singularity, Advances in Engineering Software, Vol.21, No.3, pp.169-178.

8. J. T. Chen, M. T. Liang and S. S. Yang, 1995, Dual Boundary Integral Equations for Exterior Problems, Engineering Analysis with Boundary Elements, Vol.16, pp.33-340.

9. L. Y. Chen, J. T. Chen, H.-K. Hong and C. H. Chen, 1995, Application of Cesaro Mean and the L-curve for the Deconvolution Problem, Soil Dynamics and Earthquake Engineering, Vol.14, No.5, pp.361-373.

10. J. T. Chen, H.-K. Hong and C. S. Yeh, 1995, Modal Reaction Method for Modal Participation Factors in Support Motion Problems, Communications in Numerical Methods in Engineering, Vol.11, No.6, pp.479-490.

11. D. C. Li, S. W. Chyuan, J. T. Chen and C. Y. Sun, 1995, Thermomechanical Response Analysis of Lithographic Mask Structure Using FEM, JSME International, Vol.38, No.4, pp.563-571.

12. J. T. Chen, H.-K. Hong, C. S. Yeh and S. W. Chyuan, 1996, Integral Representations and Regularizations for a Divergent Series Solution of a Beam Subjected to Support Motions, Earthquake Engineering and Structural Dynamics, Vol.25, No.9, pp.909-925.

13. J. T. Chen and Y. S. Jeng, 1996, Dual Series Representation and Its Applications to a String Subjected to Support Motions, Advances in Engineering Software, Vol.27, No.3, pp.227-238.

14. J. T. Chen, D. H. Tsaur and H.-K. Hong, 1997, An Alternative Method for Transient and Random Responses Subjected to Support Motions, Engineering Structures, Vol.19, No.2, pp.162-172.

15. J. T. Chen, S. W. Chyuan, D. W. You and F. C. Wong, 1997, Normalized Quasi-static Mass — A New Definition for Multi-support Motion Problems, Finite Elements in Analysis and Design, Vol. 26, pp.129-142.

16. J. T. Chen and F. C. Wong, 1997, Analytical Derivations for One-dimensional Eigenproblems Using Dual BEM and MRM, Engineering Analysis with Boundary Elements, Vol.20, No.1, pp.25-33. (NSC-86-2011-E-019-006)

17. J. T. Chen and D. W. You, 1997, Hysteretic Damping Revisited, Advances in Engineering Software, Vol.28, No.3, pp.165-171. (NSC-85-2011-E-019-004)

18. 陳桂鴻, 陳正宗與劉德源, 1998, 含不完全隔間聲場之對偶邊界元素分析, 力學期刊, 第十四卷, 第二期, 頁1-11. (NSC-86-2011-E-019-006)

19. J. T. Chen and K. H. Chen 1998, Analytical study and numerical experiments for Laplace equation with overspecified boundary conditions, Appl. Math. Modelling, Vol.22, pp.703-725.

20. J. T. Chen and S. Y. Leu, 1998, Finite Element Analysis, Design and Experiment of Solid Rocket Motor with a Stress Reliever, Finite Element Analysis and Design, Vol.29, pp.75-86.

21. W. Yeih, J. T. Chen, K. H. Chen and F. C. Wong, 1998, A Study on the Multiple Reciprocity Method and Complex-valued formulation for the Helmholtz Equation, Advances in Engineering Software, Vol.29, No.1, pp.1-6. (NSC-86-2011-E-019-006)

22. J. T. Chen and K. H. Chen, 1998, Dual integral formulation for determining the acoustic modes of a two-dimensional cavity with a degenerate boundary, Engineering Analysis with Boundary Elements, Vol.21, No.2, pp.105-116. (NSC-86-2011-E-019-006)

23. J. T. Chen, K. H. Chen, W. Yeih and N. C. Shieh, 1998, Dual Boundary Element Analysis for Cracked Bars under Torsion, Engineering Computations, Vol.15, No.6, pp.732-749.

24. J. T. Chen and F. C. Wong, 1998, Dual formulation of multiple reciprocity method for the acoustic mode of a cavity with a thin partition, J. of Sound and Vibration, Vol. 217, No.1, pp.75-95. (NSC-86-2011-E-019-006)

25. J. T. Chen, 1998, On fictitious frequencies using dual series representation, Mechanics Research Communications, Vol.25, No.5, pp.529-534. (NSC-86-2011-E-019-006)

26. 劉德源, 陳正宗與陳桂鴻, 1999, 二維聲場聲模之邊界積分方程新解法, 中國土木與水利工程學刊, 第十一卷, 第二期, 頁299-310. (NSC-86-2011-E-019-006)

27. W. Yeih, J. R. Chang, C. M. Chang and J. T. Chen, 1999, Applications of dual MRM for determining the natural frequencies and natural modes of a rod using the singular value decomposition method, Advances in Engineering Software, Vol.30, No.7, pp.459-468. (NSC-88-2011-E-019-005)

28. W. Yeih, J. T. Chen and C. M. Chang, 1999, Applications of dual MRM for determining the natural frequencies and natural modes of an Euler-Bernoulli beam using the singular value decomposition method, Engineering Analysis with Boundary Elements, Vol.23, No.4, pp.339-360. (NSC-88-2011-E-019-005)

29. W. Yeih, J. R. Chang and J. T. Chen, 1999, A Boundary Formulation for Calculating Moments of an Arbitrary Closed Planar Region, Engineering Analysis with Boundary Elements, Vol.23, No.7, pp.611-617.

30. M. T. Liang, J. T. Chen and S. S. Yang, 1999, Error Estimation for Boundary Element Method, Engineering Analysis with Boundary Elements, Vol.23, No.3, pp.257-265. (NSC-85-2011-E-019-004)

31. S. R. Kuo and J. T. Chen, 1999, Forced vibration of a SDOF system with a new hysteretic damping subjected to harmonic loading, Int. J. Applied Mathematics, Vol.1, No.4, pp.411-438.

32. J. R. Chang, W. Yeih and J. T. Chen, 1999, Determination of natural frequencies and natural modes using the dual BEM in conjunction with the domain partition technique, Computational Mechanics, Vol. 24, No.1, pp.29-40. (NSC-89-2011-E-019-003)

33. J. T. Chen, S. R. Kuo and K. H. Chen, 1999, A nonsingular integral formulation for the Helmholtz eigenproblems of a circular domain, J. Chinese Institute of Engineers, Vol.22, No.6, pp.729-739. (NSC-89-2011-E-019-003)

34. J. T. Chen and D. W. You, 1999, An integral-differential Equation Approach for the Free Vibration of a SDOF System with Hysteretic Damping, Advances in Engineering Software, Vol.30, No.1, pp.43-48. (NSC-85-2011-E-019-004)

35. J. T. Chen and H.-K. Hong, 1999, Review of dual boundary element methods with emphasis on hypersingular integrals and divergent series, Applied Mechanics Reviews, ASME, Vol.52, No.1, pp.17-33. (NSC-86-2011-E-019-006; NSC-87-2011-E-019-017; NSC-88-2011-E-019-005)

36. J. T. Chen, K. H. Chen and S. W. Chyuan, 1999, Numerical Experiments for Acoustic Modes of A Square Cavity Using the Dual BEM, Applied Acoustics, Vol.57, No.4, pp.293-325.(NSC-86-2011-E-019-006)

37. J. T. Chen, M. T. Liang, I. L. Chen, S. W. Chyuan and K. H. Chen, 1999, Dual boundary element analysis of wave scattering from singularities, Wave Motion, Vol. 30, No.4, pp.367-381. (NSC-88-2011-E-019-005)

38. 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. (NSC-89-2011-E-019-003)

39. 郭世榮, 陳正宗, 劉孟龍與全湘偉, 2000, 同心圓環二維 Helmholtz 方程特徵值問題眞假根探討, 中國土木與水利工程學刊, 第十二卷, 第三期, 頁553-540. (NSC-88-8815-C-019-004-E)

40. J. T. Chen and Y. W. Chen, 2000, Dual Boundary Element Analysis Using Complex Variables for Potential Problems with or without a Degenerate Boundary, Engineering Analysis with Boundary Elements, Vol.24, No.9, pp.671-684. (NSC-87-2011-E-019-017)

41. J. T. Chen, 2000, Recent development of dual BEM in acoustic problems, Computer Methods in Applied Mechanics and Engineering, Vol.188, No.3-4, pp. 833-845. (NSC-88-2011-E-019-005)

42. J. T. Chen, C. X. Huang and F. C. Wong 2000, Determination of spurious eigenvalues and multiplicities of true eigenvalues in the dual multiple reciprocity method using the singular value decomposition technique, J. Sound and Vibration, Vol.230, No.2, pp. 203-219. (NSC-89-2011-E-019-003)

43. J. T. Chen and S. R. Kuo, 2000, On fictitious frequencies using circulants for radiation problems of a cylinder, Mechanics Research Communications, Vol.27, No.1, pp. 49-58. (NSC-89-2011-E-019-021)

44. 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. (NSC-88-2011-E-019-005)

45. S. W. Chyuan, J. H. Lin, J. T. Chen and D. C. Liu, 2000, Dual boundary element analysis for fatigue behavior of missile structure, J. Chinese Institute of Engineers, Vol.23, No.3, pp.339-348. (NSC-87-2011-E-019-017)

46. J. T. Chen, S. R. Kuo, W. C. Chen and L. W. Liu, 2000, On the free terms of the dual BEM for the two and three-dimensional Laplace problems, J. Marine Science and Technology, Vol.8, No.1, pp. 8-15. (NSC-89-2011-E-019-021)

47. J. T. Chen, S. R. Kuo, K. H. Chen and Y. C. Cheng, 2000, Comments on "Vibration analysis of arbitrary shaped membranes using nondimensional dynamic influence function", J. Sound and Vibration, Vol. 235, No. 1, pp. 156-171. (NSC-89-2011-E-019-003)

48. J. T. Chen, C. T. Chen, K. H. Chen and I. L. Chen, 2000, On fictitious frequencies using dual BEM for non-uniform radiation problems of a cylinder, Mechanics Research Communications, Vol.27, No.6, pp.685-690. (NSC-89-2011-E-019-021)

49. I. L. Chen, M. T. Liang, S. R. Kuo and J. T. Chen, 2001, Dual Boundary Integral Equations for Helmholtz equation at a Corner Using Contour Approach around Singularity, J. Marine Science and Technology, Vol.9, No.1, pp.53-63.

50. I. L. Chen, J. T. Chen, S. R. Kuo and M. T. Liang, 2001, A new method for true and spurious eigensolutions of arbitrary cavities using the CHEEF method, J. Acoust. Soc. Amer., Vol.109, No.3, pp.982-999. (NSC-90-2011-E-019-021)

51. J. T. Chen, I. L. Chung and I. L. Chen, 2001, Analytical study and numerical experiments for true and spurious eigensolutions of a circular cavity using an efficient mixed-part dual BEM, Computational Mechanics, Vol.27, No.1, pp.75-87. (NSC-90-2011-E-019-021)

52. J. T. Chen and I. L. Chung, 2001, A unified method for constructing the dynamic stiffness and flexibility for rod, beam and circular membrane structures, Journal of Sound and Vibration, Vol.246, No.5, pp.877-899. (NSC-89-2011-E-019-021)

53. J. T. Chen, S. R. Kuo and Y. C. Cheng, 2001, On the true and spurious eigensolutions using circulant for real-part dual BEM, Proceedings of IUTAM/IACM/IABEM Symposium on Advanced Mathematical Computational Mechanics Aspects of Boundary Element Method, pp.75-85, Cracow, Poland, Kluwer Press. (NSC-90-2011-E-019-021)

54. J. T. Chen, J. H. Lin, S. R. Kuo and Y. P. Chiu, 2001, Analytical study and numerical experiments for degenerate scale problems in boundary element method using degenerate kernels and circulants, Engineering Analysis with Boundary Elements, Vol.25, No.9, pp.819-828. (NSC-89-2011-E-019-021)

55. J. T. Chen, J. H. Lin, S. R. Kuo and S. W. Chyuan, 2001, Boundary element analysis for the Helmholtz eigenproblems with a multiply-connected domain, Proc. Royal Society of London Ser. A, Vol.457, No.2014, pp.2521-2546. (NSC-90-2011-E-019-021)

56. J. T. Chen, S. R. Kuo and C. F. Lee, 2001, A new point of view for the Householder matrix by using matrix exponential, Int. J. Appl. Math., Vol.7, No.3, pp.289-308.

57. I. L. Chen, J. T. Chen and M. T. Liang, 2001, Analytical study and numerical experiments for radiation and scattering problems using the CHIEF method, Journal of Sound and Vibration, Vol.248, No.5, pp.809-828. (NSC-89-2011-E-019-021)

58. J. T. Chen, M. H. Chang, K. H. Chen and I. L. Chen, 2002, Boundary collocation method for acoustic eigenanalysis of three dimensional cavities using radial basis function, Computational Mechanics, Vol.29, No.4-5, pp.392-408.

59. K. H. Chen, J. T. Chen, C. R. Chou and C. Y. Yueh, 2002, Dual boundary element analysis of oblique incident wave passing a thin submerged breakwater, Engineering Analysis with Boundary Elements, Vol.26, No.10, pp.917-928.

60. J. T. Chen, M. H. Chang, K. H. Chen and S. R. Lin, 2002, The boundary collocation method with meshless concept for acoustic eigenanalysis of two-dimensional cavities using radial basis function, Journal of Sound and Vibration, Vol.257, No.4, pp.667-711. (NSC-90-2011-E-019-006)

61. J. T. Chen, C. F. Lee, I. L. Chen and J. H. Lin, 2002, An alternative method technique for degenerate scale problems in boundary element methods for the two-dimensional Laplace equation, Engineering Analysis with Boundary Elements, Vol.26, No.7, pp.559-569. (NSC-89-2011-E-019-021)

62. J. T. Chen, C. F. Lee and S. Y. Lin, 2002, A new point of view for the polar decomposition using singular value decomposition, Int. J. Comp. Numer. Anal. Appl., Vol.2, No.3, pp.257-264. (NSC-90-2011-E-019-006)

63. J. T. Chen, S. R. Kuo and G. H. Lin, 2002, Analytical study and numerical experiments for degenerate scale problems in the boundary element method for two-dimensional elasticity, Int. J. Numer. Meth. Engng., Vol.54, No.12, pp.1669-1681. (NSC-89-2011-E-019-021)

64. J. T. Chen and I. L. Chung, 2002, Computation of dynamic stiffness and flexibility for arbitrarily shaped two-dimensional membranes using an efficient mixed-part dual BEM, Structural Engineering and Mechanics, Vol.13, No.04, pp.437-453. (NSC-90-2011-E-019-021)

65. J. T. Chen, K. H. Chen and C. T. Chen, 2002, Adaptive boundary element method of time-harmonic exterior acoustics problems in two-dimension, Computer Methods in Applied Mechanics and Engineering, Vol.191, pp.3331-3345. (NSC-89-2011-E-019-003; NSC-89-2011-E-019-022)

66. J. T. Chen and Y. P. Chiu, 2002, On the pseudo-differential operators in the dual boundary integral equations using degenerate kernels and circulants, Engineering Analysis with Boundary Elements, Vol. 26, No.1, pp.41-53. (NSC-89-2011-E-019-021)

67. J. T. Chen, M. H. Chang, I. L. Chung and Y. C. Cheng, 2002, Comments on eigenmode analysis of arbitrarily shaped two-dimensional cavities by the method of point matching, J. Acoust. Soc. Amer., Vol.111, No.1, pp.33-36. (NSC-90-2011-E-019-021)

68. J. T. Chen, W. C. Chen, S. R. Lin and I. L. Chen, 2003, Rigid body mode and spurious mode in the dual boundary element formulation for the Laplace equation, Computers and Structures, Vol.81, No.13, pp.1395-1404.

69. J. T. Chen, S. R. Lin, K. H. Chen, I. L. Chen and S. W. Chyuan, 2003, Eigenanalysis for membranes with stringers using conventional BEM in conjunction with SVD technique, Computer Methods in Applied Mechanics and Engineering, Vol.192, No.11-12, pp.1299-1322.

70. J. T. Chen, K. H. Chen, I. L. Chen and L. W. Liu, 2003, A new concept of modal participation factor for numerical instability in the dual BEM for exterior acoustics, Mechanics Research Communications, Vol.26, No.2, pp.161-174.

71. J. T. Chen, S. R. Kuo, I. L. Chung and C. X. Huang, 2003, Study on the true and spurious eigensolutions of two-dimensional cavities using the dual multiple reciprocity method, Engineering Analysis with Boundary Elements, Vol.27, No.7, pp.655-670. (NSC-89-2011-E-019-003)

72. J. T. Chen, I. L. Chen, K. H. Chen, Y. T. Lee, 2003, Comments on "Free vibration analysis of arbitrarily shaped plates with clamped edges using wave-type functions," J. Sound and Vibration, Vol.262, No.2, pp.370-378.

73. J. T. Chen, L. W. Liu and H.-K. Hong, 2003, Spurious and true eigensolutions of Helmholtz BIEs and BEMs for a multiply-connected problem, Proc. Royal Society London Series A, Vol.459, No.2036, pp.1891-1925.

74. J. T. Chen, W. C. Chen, K. H. Chen and I. L. Chen, 2003, Revisit of the free terms of the dual boundary integral; equations for elasticity, Kuwait Journal of Science and Technology, Vol.30, No.2, pp.1-22.

75. S. W. Chyuan, Y. S. Liao and J. T. Chen, 2003, An innovative and efficient method-DBEM for the electrostatic problems with singularity arising from degenerate boundary, IEEE Computing in Science and Engineering, Vol.5, No.3, pp.52-58.

76. J. T. Chen, I. L. Chen, K. H. Chen, Y. T. Yeh and Y. T. Lee, 2004, A meshless method for free vibration of arbitrarily shaped plates with clamped boundaries using radial basis function, Engineering Analysis with Boundary Elements, Vol.28, No.5, pp.535-545.

77. J. T. Chen, S. Y. Lin, K. H. Chen and I. L. Chen, 2004, Mathematical analysis and numerical study of true and spurious eigenequations for free vibration of plates using real-part BEM, Computational Mechanics, Vol.34, No.3, pp.165-180.

78. J. T. Chen, and K. H. Chen, 2004, Applications of the dual integral formulation in conjunction with fast multipole method in large-scale problems for 2-D exterior acoustics, Engineering Analysis with Boundary Elements, Vol.28, No.6, pp.685-709.

79. J. T. Chen, L. W. Liu and S. W. Chyuan, 2004, Acoustic eigenanalysis of multiply-connected problems, Comm. Num. Meth. Engng., Vol.20, pp.419-440.

80. J. T. Chen, T. W. Lin, K. H. Chen and S. W. Chyuan, 2004, True and spurious eigensolutions for the problems with the mixed-type boundary conditions using BEMs, Finite Elements in Analysis and Design, Vol.40, No.11, pp.1521-1549.

81. J. T. Chen, Y. T. Lee, I. L. Chen and K. H. Chen, 2004, Mathematical analysis and treatment for the true and spurious eigenequations of circular plates in the meshless method using radial basis function, J. Chinese Institute of Engineers, Vol.27, No.4, pp.547-561.

82. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, An alternatively efficient method for simulating the electrostatic field and levitating force of MEMS combdrive, J. Micromechanics and Microengineering, Vol.14, No.8, pp.1258-1269.

83. K. H. Chen, J. T. Chen, S. Y. Lin and Y. T. Lee, 2004, Dual boundary element analysis of normal incident wave passing a thin submerged breakwater with rigid, absorbing and permeable boundaries, Journal of Waterway, Port, Coastal and Ocean Engineering, ASCE, Vol.130, No.4, pp.179-190.

84. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, An efficient technique for solving the arbitrarily multilayered electrostatic problems with singularity arising from degenerate boundary, Semiconductor Science Technology, Vol.19, R47-58, 2004.

85. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, Computational study of variations in gap size for the electrostatic levitating force of MEMS combdrive, Microelectronics Journal, Vol.35, pp.739-748.

86. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, Efficaciously modeling the exterior electrostatic problems with singularity for electron devices, IEEE Circuits & Devices, Vol.20, No.5, pp.25-34.

87. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, Numerical studies of variations in gap & finger with width ratio and traveled distance for the MEMS device, J. Mechanical Engineering Science, Proceedings of the Institution of Mechanical Engineers Part C, Vol.218, No.10, pp.1243-1253.

88. Y. S. Liao, S. W. Chyuan and J. T. Chen, 2004, Computational study of the effect of finger width and aspect ratios for the electrostatic levitating force of MEMS combdrive, IEEE Journal of Microelectromechanical System, Accepted.

89. J. T. Chen, I. L. Chen and Y. T. Lee, 2004, Eigensolutions of multiply-connected membranes using method of fundamental solution, Engineering Analysis with Boundary Elements, Accepted.

90. J. T. Chen, T. W. Lin, I. L. Chen and Y. J. Lee, 2005, Fictitious frequency for the exterior Helmholtz equation subject to the mixed-type boundary condition using BEM, Mechanics Research Communications, Vol.32, No.1, pp.75-92.

91. J. T. Chen, S. R. Lin and K. H. Chen, 2005, Degenerate scale for Laplace equation using the dual BEM, Int. J. Numer. Meth. Engng., Vol.62.

92. J. T. Chen, S. Y. Lin, I. L. Chen and Y. T. Lee, 2004, Mathematical analysis and numerical study of true and spurious eigenequations for free vibration of plates using imaginary-part BEM, Submitted.

93. J. T. Chen, C. S. Wu and K. H. Chen, 2004, A study of free terms for plate problems in the dual boundary integral equations, Engineering Analysis with Boundary Elements, Accepted.

94. J. T. Chen and C. S. Wu, 2004, Alternative derivations for the Poisson integral formula, Int. J. Math. Edu. Sci. Tech, Revised.

95. J. T. Chen, C. S. Wu, I. L. Chen and K. H. Chen, 2004, On the equivalence of the Trefftz method and method of fundamental solutions for Laplace and biharmonic equations, Computers and Mathematics with Applications, Revised.

96. J. T. Chen, I. L. Chen and K. H. Chen, 2004, A unified formulation for the spurious and fictitious frequencies in acoustics using the singular value decomposition and Fredholm alternative theorem, J. Comp. Acoustics, Revised.

(C) Conference Papers

1. 洪宏基, 陳正宗, 1986, "馬達陣列驅動之勢位流之正解兼論超強奇異雙層勢位導數", 中華民國力學學會第十屆全國力學會議論文集, 頁571-574, 高雄市.

2. Hong-Ki Hong and Jeng-Tzong Chen, 1986, "Generality of Dual Integral Equations for Elastic Body", Proceedings of the Third National Conference on Mechanical Engineering, pp.763-774, The Chinese Society of Mechanical Engineering, Chungli, Taiwan.

3. J.T. Chen and H.-K. Hong, 1987, On Hadamard Principal Value and It's Application to Crack Problems Through Boundary Element Method, Proceedings of the Eleventh National Conference on Theoretical and Applied Mechanics, pp.827-837.

4. Jeng-Tzong Chen and Hong-Ki Hong, 1988.08, Application of Integral Equations with Superstrong Singularity to Steady State Heat Conduction, The 9th International Congress on Thermal Analysis, Jerusalem, Israel, August 21-25, 1988.

5. 李清國, 林信立, 邱垂鈺與陳正宗, 1989, MSC/NASTRAN 程式在求解應力強度因子之應用, 第一屆台灣 MSC/NASTRAN 會議.

6. 林信立, 楊宗文與陳正宗, 1989, MSC/NASTRAN 程式在 Inertia Relief 功能應用, 第一屆台灣 MSC/NASTRAN 會議.

7. J.T. Chen and H.-K. Hong, 1989.08, Singularity in Darcy Flow Around a Cutoff Wall, in C. A. Brebbia and J. J. Connor (eds.) Advances in Boundary Elements, Vol.2, Field and Fluid Flow Solution, pp.15-27.

8. C.S. Wang, S. Chu and J.T. Chen, 1990, Boundary Element Method for Predicting Store Airloads During Its Carriage and Separation Procedures, in S. Grilli, C. A. Brebbia and A. H. D. Cheng (eds.), Computational Engineering with Boundary Elements, Vol.1: Fluid and Potential Problems, pp.305-317.

9. J.T. Chen and S.Y. Leu, 1990, Analysis, Design and Experiment of Solid Rocket Motor with Stress Reliever Using MSC/NASTRAN, MSC/NASTRAN Second Annual User's Conference, Taiwan.

10. W.R. Harn, S.G. Lin and J.T. Chen, 1990, Investigations into the Local Effects in the Model Modification, MSC/NASTRAN Second Annual User's Conference, Taiwan.

11. J.T. Chen, S.W. Chyuan and H.-K. Hong, 1991.10, On the Accuracy of Finite Elements and Boundary Elements in Seepage Flow Problems with Sheet Piles, Proceedings of the Third Annual MSC Taiwan User's Conference, pp.(11)1-23.

12. 洪宏基, 葉超雄, 陳正宗與劉德源, 1992.11, 橋梁承受多重輸入之主動結構控制, 第一屆結構工程研討會論文集, 南投溪頭, 頁513-522.

13. 葉超雄, 洪宏基與陳正宗, 1992.11, 對偶積分表示式在剪力梁漫散振動的應用, 中華民國第十六屆全國力學會議論文集, 基隆市, 頁767-774.

14. J.T. Chen and S.W. Chyuan, C.S. Yeh and H.-K. Hong, 1992.11, Comparisons of Analytical Solution and MSC/NASTRAN Results on Multi-support Motion of Long Bridge During Earthquake, Proceedings of MSC/NASTRAN Fourth Annual User's Conference, November 19-20, 1992, Taiwan, pp.(20)1-17.

15. D.H. Tsaur, S.W. Chyuan and J.T. Chen, 1992.11, On the Accuracy of MSC/NASTRAN Response of Two-span Beams to Spatially Varying Seismic Excitation, Proceedings of MSC/NASTRAN Fourth Annual User's Conference, November 19-20, 1992, Taiwan, pp.(20)1-17.

16. J.T. Chen, H.-K. Hong and S.-W. Chyuan, 1992.12, Finite Element and Boundary Element Analyses in Seepage Problems Using MSC/NASTRAN and Integral Formulation, ICES92 Conference, Hong Kong.

17. J.T. Chen and S.W. Chyuan, 1992, Comparisons of Analytical Solution and MSC/NASTRAN Results on Multi-support Motion of Long Bridge During Earthquake, ICES92 Conference, Hong Kong.

18. D.C. Li, J.T. Chen, S.W. Chyuan and C.Y. Sun, 1993, Finite Element Analysis of Thermal Effects in an X-Ray Mask, Proceedings of SMS 93 Symposium on Semiconductor Modelling & Simulation, in Coorporation with IEEE Electron Device Society, Taipei, Taiwan.

19. S.W. Chyuan, J.T. Chen and D.C. Li, 1993, Modeling of Transient Thermal Mechanical Response Using Finite Element Method (MSC/NASTRAN), The Fifth Annual Conference of MSC/NASTRAN Users' Conference.

20. J.T. Chen, S.W. Chyuan, H.-K. Hong and C.S. Yeh, 1993, A Note on the Application of Large Mass and Large Stiffness Techniques for Multi-Support Motion, The Fifth Annual Conference of MSC/NASTRAN Users' Conference.

21. J. T. Chen, H.-K. Hong and C. S. Yeh, 1993, On the Stokes' Transformation and Its Application to Support Motion Problem, Proc. 17^{th} Nat. Conf. on Theoretical and Applied Mechanics, pp.753-760, Taipei, Taiwan.

22. H.-K. Hong and J.T. Chen, 1993, On the Dual Integral Representation and Its Application to Vibration Problems, in Stress Analysis, Boundary Elements XV, Vol.2, pp.377-390, J. J. Rencis and C. A. Brebbia(eds.), Computational Mechanics Publication, Southampton.

23. J.T. Chen and H.-K. Hong, 1993, On The Relations of Hypersingular Kernel and Divergent Series in Heat Conduction Problem Using BEM, pp.115-124, in Boundary Element Technology VIII, H. Pina and C. A. Brebbia edited, Computational Mechanics Publication, Southampton.

24. L. Y. Chen, J. T. Chen, C. H. Chen and H.-K. Hong, 1994, The Time-Domain Solution of a Hysteretic Damping System in the Phase Plane, 振動噪音第二屆學術研討會.

25. H.-K. Hong and J. T. Chen, 1994, Dual Integral Representation for Laplace's Equation with Corners, NSC Workshop on Computational Science, Taipei, Taiwan.

26. J.T. Chen, L. Y. Chen and H.-K. Hong, 1995, Regularization Method for Deconvolution Problems in Soil Dynamics, pp.351-358, in Boundary Elements XVII, edited by C. A. Brebbia, S. Kim, T. A. Osswald and H. Power, Comp. Mech. Publ..

27. J. T. Chen, S. W. Chyuan, D. W. You and H. T. Wong, 1995, A New Method for Determining the Modal Participation Factor in Support Motion Problems Using MSC/NASTRAN, The Seventh Annual MSC/NASTRAN Users' Conference, (15), p1-p14, Taipei, Taiwan.

28. M. T. Liang, R. Huang, J. T. Chen, S. W. Chyuan and Y. W. Huang, 1995, Study of Inspection for RC Bridge Decks Using Modal Analysis Method, Proceedings of the Eighth Asia-Pacific Conferences on Nondestructive Testing, edited by C. P. Hu, T. T. Wu and J. L. Horng, p.429-436.

29. J. T. Chen and H.-K. Hong, 1996, Review of Dual Integral Representations with Emphasis on Hypersingularity and Divergent Series, Invited one-hour Lecture, Fifth International Colloquium on Numerical Analysis, Plovdiv, Bulgaria.

30. K. H. Chen and J. T. Chen, 1996, On the Inverse Problems for Laplace Equation, Proceeding of the 20th National Conference on Theoretical and Applied Mechanics, pp.519-526.

31. 翁煥昌, 陳正宗與劉德源, 1996, 多倒易法與對偶邊界元素法在一維特徵值問題的應用, 中華民國力學學會第二十屆全國力學會議論文集, pp.527-534.

32. 陳正宗與游大偉, 1996, 遲滯阻尼時間域解法探討, 中華民國第三屆結構工程會議論文集, 墾丁, pp.1945-1954.

33. M. T. Liang, J. T. Chen and S. S. Yang, 1996, Error Estimation for Boundary Element Method, ASME Symposium on Recent Developments in Boundary Element Method, Baltimore, U.S.A.. (NSC-85-2211-E-019-004)

34. C. M. Chang, J. T. Chen and W. D. Yeih, 1997, Applications of dual MRM for determining the natural frequencies and natural modes of a beam, Proceeding of the 21st National Conference on Theoretical and Applied Mechanics, pp.31-38.

35. W. Yeih, J. T. Chen, K. H. Chen and F. C. Wong, 1997, A complete multiple reciprocity method for the 2-D Helmholtz equation, Proceeding of the 21st National Conference on Theoretical and Applied Mechanics, pp.261-265.

36. J. T. Chen, K. H. Chen and S. W. Chyuan, 1997, Numerical experiments for acoustic modes of a square cavity using dual BEM and ABAQUS, The Ninth Annual MSC/NASTRAN Users Conference.

37. J. T. Chen, K. H. Chen, W. Yeih and N. C. Shieh, 1997, Dual Boundary Element Analysis for Cracked Bars under Torsion, Book of Abstracts of McNU '97 ASME AMD/ASME EMD/SES Summer Meeting, p.77.

38. J. T. Chen, 1997, Review of Damping Models with Emphasis on Hysteretic Damping, Invited one-hour Lecture, Sixth International Colloquium on Numerical Analysis, Plovdiv, Bulgaria.

39. Kuo, S. R., Chen, J. T. and Huang, C. X., 1998, Analytical study and numerical experiments for true and spurious acoustic eigensolutions of a circular cavity using multiple reciprocity method, Proceeding of the 11th Symposiumof the Acoustic Society of the Republic of China, Keelung, Taiwan.

40. Chen, J.T., Huang, C.S. and Wong, F.C., 1998, Analysis and experiment for acoustic modes of a cavity containing an incomplete partition, Proceedings of the Fourth National Conference on Structural Engineering,Vol.1, pp.349-356.

41. 陳義麟, 陳正宗, 梁明德與李洋傑, 1998, 外域 Helmholtz 方程虛擬頻率問題的探討, 第二十屆海洋工程研討會論文集, 頁615-622.

42. 全湘偉與陳正宗, 1998, 空對空飛彈發動機藥柱結構於溫度衝擊 (超結構試驗) 狀況下之週期估算暨壽限分析, 中華民國第五屆破壞科學研討會, pp.31-38, 溪頭.

43. J. T. Chen, 1998, Recent development of dual BEM in acoustic problems, Fourth World Congress on Computational Mechanics, Keynote lecture, Argentina.

44. 全湘偉, 李子琦與陳正宗, 1999, 微機電元件與深次微米體積電路製造所需 X 光光罩之熱效應分析, 1999年電子元件暨材料協會研討會, 長庚大學, 林口, 頁593-596.

45. 陳正宗, 郭世榮與李慶鋒, 1999, Householder 正交矩陣的新觀點, 中華民國力學學會第二十三屆全國會議論文集, 新竹交大, 頁355-362.

46. 郭世榮, 陳正宗與劉孟龍, 1999, 同心圓環二維 Helmholtz 方程特徵值問題眞假根探討, 中華民國力學學會第二十三屆全國會議論文集, 新竹交大, 頁369-376.

47. 陳義麟, 朱皖山, 陳正宗, 梁明德與郭世榮, 1999, 解析及數值實驗探討積分方程外域問題 CHIEF 方法, 中華民國力學學會第二十三屆全國力學會議論文集, 新竹交大, 頁 408-415.

48. 陳鈺文與陳正宗, 1999, 複變數阿達馬主值觀念及其應用, 八十八年電子計算機於土木水利工程應用研討會, 中興大學, 台中, pp.1636-1644.

49. J. T. Chen, S. R. Kuo and C. X. Huang, 1999, Analytical study and numerical experiments for true and spurious eigenvalues of a circular cavity using real part BEM, IUTAM/IACM/IABEM Symposium on Advanced Mathematical Computational Mechanics Aspects of Boundary Element Method, pp.18-19..

50. J. T. Chen, I. L. Chen and M. T. Liang, 1999, On irregular frequencies in wave radiation solutions using dual boundary element method, ISOPE99, Brest, pp.260-265.

51. Chen, J.T., Kuo, S. R. and Lin, G. H., 2000, Analytical study and numerical experiment for egenerate scale problems in boundary element method using degenerate kernels and circulants, The Second IMA International Conference on Boundary Integral Methods: Theory and Applications Bath, U.K..

52. Chen, J.T., Chen, C.T., Chen, K.H. and Chen I.L., 2000, Applications of dual boundary integral equations to exterior acoustic problems, Proceedings of the Fifth National Conference on Structural Engineering, Vol.I, pp.325-332, Seatou.

53. J. T. Chen, S. R. Kuo and Y. P. Chiu, 2000, On the pseudo-differential operators in dual boundary integral equations using degenerate kernels and circulants, IABEM 2000 Symposium, P.53, Brescia, Italy.

54. 陳桂鴻與陳正宗, 2000, Adaptive boundary element computation for radiation and scattering problems in two dimension, 中華民國力學學會第二十四屆全國力學會議論文, I18, 中壢中原.

55. Chen, K. H., Chen, J. T., Chou, C. R. and Yueh, C. Y., 2001, Dual boundary element method for determining the reflection and transmission coefficients of oblique incident wave passing a thin submerged breakwater, 中華民國力學學會第二十五屆國力學會議論文, 台中, 逢甲大學.

56. Chen, J. T., K. H. Chen, I. L. Chen and L. W. Liu, 2001, A new concept of modal participation factor for numerical instability in the dual BEM for exterior acoustics, 第三屆水下技術研討會, 基隆.

57. Chen, I. L., Chen, J. T. and Kou, S. R., 2001, Analytical study numerical experiments for spurious eigensolutions and the fictitious wave number of exterior acoustic problem using BEM, 第十三屆中國造船暨輪機工程研討會, 台北.

58. J. T. Chen, 2002, On the rank-deficiency problems in boundary integral formulation using the Fredholm alternative theorem and singular value decomposition technique, Fifth World Congress on Computational Mechanics, Keynote lecture, Vienna.

59. Hong, H.-K, Chen, J. T., Chen, I. L. and Chen K. H., 2002, Hypersingular integral equation and its applications in computational mechanics, Conference on Computational Science, Sinchu, Taiwan.

60. J. T. Chen and S. R. Lin, 2002, Degenerate scale for torsion bar problems with arbitrary cross sections using the dual BEM, Beteq 2002 Conference, Beijing.

61. J. T. Chen, K. H. Chen and Y. P. Chiu, 2002, Symmetric BEM formulation and program development, The 6th National Conference on Structural Engineering, Kenting, Taiwan.

62. J. T. Chen, I. L. Chen and K. H. Chen, 2002, Analytical study and numerical experiments for spurious eigensolutions of interior problem and the fictitious wave number of exterior acoustic problem using BEM, The 6th National Conference on Structural Engineering, Kenting, Taiwan.

63. 林盛益, 朱雅雯, 陳正宗, 2002, 邊界元素法在拉普拉斯方程反算問題之應用, 中華民國力學學會第二十六屆全國力學會議論文, 雲林虎尾.

64. T. W. Lin, K. H. Chen, I. L. Chen, J. T. Chen, 2002, True and Spurious Eigensolutions of Two-dimensional Acoustic Cavities with the Mixed-type Boundary Conditions using BEMs, Proceeding of the 26th National Conference on Theoretical and Applied Mechanics, Hu-Wei, Taiwan.

65. Y. T. Lee, I. L. Chen, K. H. Chen, J. T. Chen, 2002, A new meshless method for free vibration analysis of plates using radial basis function, Proceeding of the 26th National Conference on Theoretical and Applied Mechanics, Hu-Wei, Taiwan.

66. I. L. Chen, J. T. Chen and M. T. Liang, 2002, Relationship between the Green's matrix of SVD and the Green's function matrix of SVE for exterior acoustics, Annual Meeting and 15th Symposium of Acoustical Society of the Republic of China, Tainan, Taiwan.

67. S. Y. Lin, I. L. Chen and J. T. Chen, 2003, Mathematical analysis and numerical study of the true and spurious eigenequations for free vibration of annular plate using the BEM, 電子計算機於土木水利工程應用研討會論文集, Taipei, Taiwan.

68. I. L. Chen, K. H. Chen, C. S. Wu and J. T. Chen, 2003, The method of fundamental solutions for two-dimensional exterior acoustics, 第十五屆中國造船暨輪機工程研討會及國科會成果發表會, Kaohsiung, Taiwan.

69. S. Y. Lin, Y. T. Lee, K. H. Chen and J. T. Chen, 2003, Mathematical analysis of the true and spurious eigensolutions for free vibration of plate using real-part BEM, 第十五屆中國造船暨輪機工程研討會及國科會成果發表會, Kaohsiung, Taiwan.

70. S. Y. Lin, Y. T. Lee, W. Shen and J. T. Chen, 2003, Mathematical analysis of the true and spurious eigensolutions for free vibration of plate using imaginary-part BEM, 第十一屆振動噪音研討會, Keelung, Taiwan.

71. C. S. Wu, S. Y. Lin, S. R. Lin and J. T. Chen, 2003, On the equivalence of method of fundamental solutions and Trefftz method for Laplace equation, 第十五屆中國造船暨輪機工程研討會及國科會成果發表會, Kaohsiung, Taiwan.

72. J. T. Chen, 2003, Meshless-free for eigenproblem, Workshop on meshless methods, Lisbon, Portugal.

73. J. T. Chen, H. K. Hong, I. L. Chen and K. H. Chen, 2003, Nonuniqueness and its treatment in the boundary integral equations and boundary element method, Computational Mathematics Conference, Plenary lecture, Hsin-Chu.

74. J. T. Chen, I. L. Chen and C. S. Wu, 2003, On the equivalence of MFS and Trefftz method for Laplace problems, 第七屆全中國工程中邊界元法學術會議暨 Global Chinese workshop on boundary element and meshless method, 秦皇島, 中國.

75. J. T. Chen, M. H. Chang and Y. T. Lee, 2003, A new meshless method for eigenproblems using radial basis function, Global Chinese Workshop on Boundary Element and Meshless Methods, Qinhuangdao, China.

76. J. T. Chen, S. Y. Lin, L. W. Liu and J. H. Lin, 2003, BEM for multiply-connected eigenproblems, The 20th International Conference "Mathematical Methods in Mechanics of Solids and Constructions. Methods of Boundary Elements and Finite Elements", St. Petersburg, Russia.

77. J. T. Chen, 2003, Spurious eigensolution using BEM, International Conference on Computational & Experimental Engineering and Science, Keynote lecture, Corfu, Greece.

78. Y. T. Lee, I. L. Chen and J. T. Chen, 2003, Elimination of spurious eigenfrequency in the boundary element method using CHEEF technique, 2003 Annual Meeting and 16th Symposium of Acoustical Society of Republic of China, Taipei, Taiwan.

79. Y. T. Lee, I. L. Chen and J. T. Chen, 2003, Eigensolutions of annular membrane using the method of fundamental solutions, Proceeding of the 27th National Conference on Theoretical and Applied Mechanics, Tainan, Taiwan.

80. C. S. Wu, K. H. Chen and J. T. Chen, 2003, On the equivalence of the Trefftz method and the method of fundamental solutions for plate problem, Proceeding of the 27th National Conference on Theoretical and Applied Mechanics, Tainan, Taiwan.

81. 陳正宗, 沈文成, 林建華與全湘偉, 2004, 對偶邊界元素法在疲勞破壞之工程應用, 第八屆中華民國破壞科學研討會, 墾丁.

82. Y. T. Lee, I. L. Chen and J. T. Chen, 2004, Mathematical analysis of the true and spurious eigensolutions for annular plates using the method of fundamental solutions, 第十二屆振動噪音研討會, 台北.

83. C. C. Hsiao, K. H. Chen and J. T. Chen, 2004, Applications of hypersingular equations to free-surface seepage problems, 第十四屆水利工程研討會, 交大, 新竹.

84. J. T. Chen, 2004, Pitfalls of BEM and their treatment, International Conference on Computational & Experimental Engineering and Science, Keynote lecture, Madeira, Portugal.

85. 陳正宗, 2004, 工程數學教學經驗談, 工程力學與數學創意教學研討會, 台北.

86. C. S. Wu, K. H. Chen and J. T. Chen, 2004, A study of free terms for plate problems in the dual BEM, 第七屆結構工程研討會, 鴻禧.

87. J. T. Chen, I. L. Chen and K. H. Chen, 2004, A unified formulation for degenerate problems in BEM, 第七屆結構工程研討會, 鴻禧.

88. W. C. Shen, C. F. Lee and J. T. Chen, 2004, A study of half-plane laplace problems with a circular hole, 第七屆結構工程研討會, 鴻禧.

89. W. C. Shen, K. H. Chen and J. T. Chen, 2004, A new method for Laplace equation in two-dimensional regions with circular holes, Proceeding of the 28th National Conference on Theoretical and Applied Mechanics,Taipei, Taiwan.

90. C. C. Hsiao, Y. T. Lee and J. T. Chen, 2004, A new method for plate problems with circular boundaries, Proceeding of the 28th National Conference on Theoretical and Applied Mechanics,Taipei, Taiwan.

91. C. T. Chen, I. L. Chen and J. T. Chen, 2004, A new method for eigenproblems with circular boundaries, Proceeding of the 28th National Conference on Theoretical and Applied Mechanics,Taipei, Taiwan.

92. C. C. Hsiao, J. T. Chen and K. H. Chen, 2004, Application of hypersingular equations to free-surface seepage, International Conference on Computational Methods, Singapore.

93. W. C. Shen, J. T. Chen and C. F. Lee, 2004, A study on Laplace problems of infinite plane with multiple circular holes, International Conference on Computational Methods, Singapore.

94. Y. T. Lee, J. T. Chen and I. L. Chen, 2004, Free vibration analysis of multiply-connected plates using the method of fundamental solution, International Conference on Computational Methods, Singapore.

(D) Other Publications

1. J.T. Chen, 1986, On Hadamard Principal Value and Boundary Integral Formulation of Fracture Mechanics, Master Thesis, IAM/NTU.

2. J.T. Chen, 1994, On a Dual Representation Model and Its Applications to Computational Mechanics, Ph.D. Thesis, Department of Civil Engineering, National Taiwan University.

3. 陳正宗, 1988, 多管火箭系統介紹, 青年日報科技版.

4. 陳正宗, 1991, MSC/NASTRAN 教育部研討會講義.

5. 洪宏基與陳正宗等, 1991.04, 高速公路圓山橋等三座橋樑振動周期實測, 台灣大學地震工程研究中心報告 R80-02, 51面.

6. J.T. Chen, 1993, Lecture Note on MSC/NASTRAN Applications on Seepage Analysis and Earthquake Engineering, MSC/NASTRAN Morkshop, Ministration of Education.

7. 洪宏基, 劉德源, 陳正宗與伍昊炯, 1994.07, 系統源反卷積與主動控制研究, 國科會 NSC83-0410-E-002-040 研究報告.

8. 陳正宗與游大偉, 1996, 遲滯阻尼機制時間域解法探討, 國科會專題研究成果報告 NSC-85-2211-E-019-004, 國立台灣海洋大學河海工程研究所.

9. 陳正宗, 翁煥昌與陳桂鴻, 1996, 石化工業加熱爐爐膛溫度場分佈之數值分析與研究, 中油煉製研究所研究報告 84-17-9190-0401.

10. 梁明德, 黃然, 陳正宗, 梁智信, 王國隆與洪照亮, 1997, 鋼筋混凝土橋梁腐蝕使用年限之研究(一), 中興工程顧問社學術研究報告, 12月, 124pp.

11. 陳正宗, 劉德源, 陳桂鴻與翁煥昌, 1997, 不完全隔間小空間聲場自然聲模分析與實驗, 國科會專題研究成果報告 NSC-86-2211-E-019-006, 國立台灣海洋大學河海工程研究所.

12. 陳正宗與陳鈺文, 1998, 複變數邊界元素法, 國科會專題研究計畫成果報告, NSC-87-2211-E019-017, 國立台灣海洋大學河海工程研究所.

13. 陳正宗與林建華, 1998, 含裂縫扭桿之對偶邊界元素法分析, 國科會大專學生參與專題研究成果報告 NSC-87-2815-C-019-011-E, 國立台灣海洋大學河海工程研究所.

14. 梁明德, 黃然, 陳正宗與廖晏聖, 1998, 鋼筋混凝土橋梁腐蝕及使用年限之研究 (二), 財團法人中興工程顧問社委託學術機構研究報告.

15. 陳正宗, 郭世榮與李慶鋒, 1999, Householder 正交矩陣的新觀點, 國科會大專學生參與專題研究成果報告, NSC-88-2815-C-019-003-E, 國立台灣海洋大學河海工程研究所.

16. 郭世榮, 陳正宗與劉孟龍, 1999, 同心圓環二維 Helmholtz 方程特徵值問題眞假根探討, 國科會大專學生參與專題研究成果報告, NSC-88-2815-C-019-004-E, 國立台灣海洋大學河海工程研究所.

17. 陳正宗與陳義麟, 1999, 對偶積分方程在外域聲場的應用, 國科會專題研究成果報告, NSC-88-2211-E-019-005, 國立台灣海洋大學河海工程研究所.

18. 陳正宗, 郭世榮與陳義麟, 2000, 對稱化邊界元素理論推導與程式開發, 國科會專題研究成果報告, NSC-89-2211-E-019-004.

19. 陳正宗, 郭世榮與陳義麟, 2000, Analytical study and numerical experiments for spurious eigensolutions of interior problem and the fictitious wave number of exterior acoustic problem using BEM, 國科會專題研究成果報告, NSC-89-2211-E-019-003.

20. 陳正宗與賴玉樹, 2000, 二維 Laplace 基本解剛體運動項之研究, 國科會大專學生參與專題研究成果報告, NSC-89-2815-C-019-003-E, 國立台灣海洋大學河海工程研究所.

21. 郭世榮, 陳正宗與劉立偉, 2000, 對偶邊界元素法自由項的研究, 國科會大專學生參與專題研究成果報告, NSC-89-2815-C-019-005-E, 國立台灣海洋大學河海工程研究所.

22. 陳正宗, 李慶鋒與林盛益, 2001, 奇異值分解法在連體力學上之應用, 國科會大專學生參與專題研究成果報告, NSC-89-2815-C-019-062R-E, 國立台灣海洋大學河海工程研究所.

23. 郭世榮, 陳正宗, 2001, 複數邊界元素法在含退化邊界勢能問題的研究, 國科會專題研究成果報告, NSC-89-2211-E-019-020, 國立台灣海洋大學河海工程研究所.

24. 陳正宗, 郭世榮, 陳桂鴻, 2001, 潛堤對斜向入射波消波影響之對偶邊界元素法, 國科會專題研究成果報告, NSC-89-2211-E-019-022, 國立台灣海洋大學河海工程研究所.

25. 郭世榮, 陳正宗,2001, 複數邊界元素法在含退化邊界勢能問題的研究, 國科會專題研究成果報告,NSC-89-2211-E-019-020, 國立台灣海洋大學河海工程研究所.

26. 陳正宗, 郭世榮與陳義麟,2001, 對偶邊界積分方程數學分析及其應用 (1/2) , 國科會專題研究成果報告, NSC-89-2211-E-019-021, 國立台灣海洋大學河海工程研究所.

27. 陳正宗, 李慶鋒與林盛益,2001, 奇異值分解法在連體力學上之應用, 國科會大專學生參與專題研究成果報告,NSC-89-2815-C-019-062R-E, 國立台灣海洋大學河海工程研究所.

28. 陳正宗, 郭世榮與陳義麟,2002, 對偶邊界積分方程數學分析及其應用 (2/2) , 國科會專題研究成果報告, NSC-90-2211-E-019-021, 國立台灣海洋大學河海工程研究所.

29. 陳正宗, 陳義麟與陳桂鴻,2002, 無網格法理論建構與程式開發, 國科會專題研究成果報告, NSC-90-2211-E-019-006, 國立台灣海洋大學河海工程研究所.

30. 陳正宗與陳桂鴻,2003, 對偶邊界積分式於快速多重級架構下在聲學與潛堤斜向入射水波之應用, 國科會專題研究成果報告, NSC-91-2211-E-019-010, 國立台灣海洋大學河海工程研究所.

31. 陳正宗, 陳義麟與陳桂鴻, 2003, 邊界元素法中退化問題之統一推導 (1/3), 國科會專題研究成果報告, NSC-91-2211-E-019-009, 國立台灣海洋大學河海工程研究所.

32. 陳正宗, 陳義麟與陳桂鴻, 2004, 邊界元素法中退化問題之統一推導 (2/3), 國科會專題研究成果報告, NSC-92-2211-E-019-013, 國立台灣海洋大學河海工程研究所.

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