严谨　求实

团结　创新

师资队伍

▸ 长江学者、国家杰青

▸ 教　授

▸ 副教授

▸ 讲　师

▸ 兼职教授

● 当前位置：首页 >> 师资队伍 >> 副教授

唐和生

博士、研究室主任、副教授、博士生导师

出生年月：1973年10月

邮箱:thstj@ tongji.edu.cn

Office: 土木大楼B507

Tel: +86-(0) 21-65982390　Fax: +86-(0) 21-65983410

教育经历

1991.9-1995.7 青岛海洋大学，应用地球物理专业，获学士学位

1996.9-1999.3 同济大学，固体力学专业，获硕士学位

1999.3-2002.4 同济大学，工程力学专业，获博士学位

工作经历

2002.04-现在　 同济大学，结构工程与防灾研究所，讲师，副研究员

2003.2-2005.03 日本京都大学从事博士后研究工作

2006.10-2007.3 日本近畿大学访问研究

主要研究内容

1、结构工程防灾减灾

2、考虑不确定性结构分析与优化设计

3、自然计算分析方法

4、建筑结构健康监测

5、噪声与振动控制

目前在研的科研项目：

1. 国家自然科学基金项目：基于证据理论和Info-Gap决策的结构可靠性稳健设计优化，2012.1-1015.12。

2. 光华同济大学土木工程学院基金项目：结构不确定性的数学模型与高性能计算方法的研究，2010.6 -2013.6。

3. 科技部国家重点实验室基础研究资助项目：基于证据理论的结构可靠性稳健设计优化研究，2011.1-2013.12。

4. 国家自然科学基金项目：基于群集智能的复杂结构系统分散化识别方法研究，2008.1-2010.12。

5. 国家教育部留学归国人员科研启动基金项目：对大型结构进行状态评估的序贯蒙特卡洛贝叶斯统计推理模型研究，2006.10-2008.9。

6. 国家"十一五"科技支撑计划：重点课题"大型及重要建筑安全监测预警集成技术研究与示范"的子课题 "典型结构风效应监测技术与无线传感技术研究"，2006.10-2010.12。

7. 上海申通轨道交通科研项目："地铁列车运行引起建筑物二次辐射噪声研究"，2008.9～2009.12。

8. 上海申通轨道交通科研项目："地铁列车运行引起振动、噪声赔偿机制研究"，2009.5～2010.6。

近期发表的主要论文

Journal Articles

2011

[1] 石家武，唐和生·基于薄层法-有限元的地铁引起地面的振动分析·佳木斯大学学报，2011，Vol.29（2）:164-167。

[2] 柴林峰，唐和生. 自适应免疫克隆选择算法的参数识别·佳木斯大学学报(自然科学版)，2011，3：168-172。

2010

[3] 唐和生，许锐，薛松涛，张伟，基于CLPSO算法的结构系统识别，振动、测试与诊断, 30(6), 2010，605-611.

[4] H. Tang, J. Zhou, S. Xue, L. Xie., Big Bang-Big Crunch optimization for parameter estimation in structural systems, Mechanical Systems and Signal Processing, 24(8), 2010,2888-2897.

[5] 唐和生，李鹏飞，范存新，基于SCE算法的结构系统识别，振动工程学报, 23(3), 2010,243-248。

[6] 李峰; 唐和生; 许锐; 薛松涛; 桁架结构优化设计的免疫克隆选择算法，同济大学学报(自然科学版), 38(9), 2010, 1261-1265.

[7] 唐和生; 周进; 薛松涛; 范存新; 微分演化算法在结构参数识别中的应用，振动与冲击, 29(9), 2010,42-46

[8] 唐和生，王兆亮，薛松涛，微分演化算法在桁架形状优化中的应用，土木建筑与环境工程,32(1), 2010：42-50.

[9] 范存新; 张毅; 唐和生; 考虑桩—土—结构相互作用时高层建筑风振响应分析(Ⅱ)，四川建筑科学研究，2010年 01期

2009

[10] Songtao Xue , Hesheng Tang and Jin Zhou，Identification of Structural Systems Using Particle Swarm Optimization，Journal of Asian Architecture and Building Engineering，vol.8 no.2, 2009,517-524.

[11] Songtao Xue, Hesheng Tang and Qiang Xie, Structural Damage Detection Using Auxiliary Particle Filtering Method, Structural Health Monitoring,Vol 8, No.2, 2009,101-112.

[12] 唐和生，李峰，王勇，薛松涛，陈镕，桁架结构形状优化的粒子群优化算法，哈尔滨工业大学学报，Vol.41,No.12, 2009: 94-99.

[13] 李 峰,唐和生,薛松涛,王勇,陈镕,粒子群优化算法在桁架优化设计中的应用,土木建筑与环境工程, Vol. 31, No.1, 2009,7-12.

[14] 张伟，唐和生，薛松涛，李凯,基于粒子群优化的结构系统识别,Vol.33, No.2, 2009.

2008

[15] Hesheng Tang, Songtao Xue, Cunxin Fan, Differential evolution strategy for structural system identification, Computers and Structures, Vol.86, No.21-22, 2008.

[16] Songtao Xue, Hesheng Tang, Jun Okada, Toshimitsu Hayashi and Satoshi Arikawa, Dynamics of Real Structure in Fresh, Damaged and Reinforced States in Comparison with Shake Table and Simulation Models, Journal of Asian Architecture and Building Engineering, Vol.7, No.2, 2008.

[17] 唐和生,张 伟,陈镕,薛松涛,杨晓楠,基于自适应粒子滤波的结构损伤识别,振动、测试与诊断, Vol.28, No.3, 2008, 211-215.

[18] 曹威巍,唐和生,基于微分演化算法的系统识别,华 中 科 技 大 学 学 报（城市科学版）,Vol.25,No.4,2008, 287-289.

[19] 谢 强,唐和生,邸元,SVD-Unscented卡尔曼滤波的非线性结构系统识别,应用力学学报, Vol. 25, No.1, 2008.(in chinese)

[20] 范存新,陈家瑾,张毅,唐和生,杆系结构多荷载识别的三角级数分析法,力学季刊, Vol.29, No.3,2008,487-491.

[21] 李安勇,陈镕,薛松涛,唐和生,考虑土-结构相互作用的高层建筑横风向振动分析,振动与冲击, Vol. 27 No. 10, 2008.

2007

[22] He-Sheng Tang, Songtao Xue and Tadanobu Sato, H-infinity Filtering in Neural Network Training and Pruning with Application to System Identification, Journal of Computing in Civil Engineering, ASCE, Vol.21, No. 1, 2007.

[23] He-Sheng Tang, Song-Tao Xue, Rong Chen, Tadanobu Sato, H-infinity Filtering Method for Neural Network Training and Pruning. Neural Network World, Vol.16, No.1, 41-63, 2007.

[24] 唐和生,薛松涛,陈镕,杨晓楠, 结构损伤识别的序贯辅助粒子滤波方法, 同济大学学报（自然科学版），Vol.37,No.3,309-314,2007.

[25] 唐和生,薛松涛,陈镕,谢强：H∞-学习神经网络的非线性系统识别，振动与冲击， Vol.26, No.2, 2007.

[26] ZHANG Mao-Yu,XUE Song-tao, CHEN Rong, TANG He-Sheng, Control Efect Analysis of Variable Frequency TMD Appl ied to Frame Structure, Chinese Quarterly of Mechanics, Vol.28, No.2,2007.(in chinese)

[27] XUE Songtao, ZHANG Maoyu, TANG Hesheng, CHEN Rong, Online weighted eigenvector LS-SVM for the identification of structural damage, Sichuan Building Science, Vol.33, No.3, 2007.

2006

[28] He-Sheng Tang, Song-Tao Xue, Rong Chen and Tadanobu Sato: Online Weighted LS-SVM for Hysteretic Structural System Identification，Engineering Structure, 28, 2006, 1728-1735.

[29] 唐和生, 薛松涛, 陈镕，晋侃：序贯最小二乘支持向量机的结构系统识别，振动工程学报，Vol.19, No.3, 382-387, 2006.

[30] 杨晓楠，唐和生, 陈镕, 薛松涛, 钢结构损伤识别中Db族小波函数选择·同济大学学报（自然科学版），2006 Vol.34 No.12.

2005

[31] YANG Xiao-nan, JIANG Shao-fei, TANG He-sheng, CHEN Rong, WANG Yuan-gong, Influence of the Selection of Wavelet Functions on Structural Damage Identification, Journal of Shenyang Jianzhu University (Natural Science) ，Vol.21, No.6, 2005.12(in Chinese).

[32] Chen Rong, Zheng Hai-tao, Xue Song-tao, Tang He-sheng: Analysis on Impact Responses of an Unrestrained Planar Frame Structure （Ⅰ）— Formula Derivation, Applied Mathematics and Mechanics, Vol.26, No.11, 2005。

[33] Chen Rong, Zheng Hai-tao, Xue Song-tao, Tang He-sheng: Analysis on Impact Responses of an Unrestrained Planar Frame Structure （Ⅱ）—Numerical Example Analysis, Applied Mathematics and Mechanics, Vol.26, No.11, 2005。

[34] Tang He-sheng, Xue Song-tao, Chen Rong, Wang Yuan-gong: Analyses on Structural Damage Identification Based on Combined Parameters, Applied Mathematics and Mechanics, Vol.26, No.1, 2005。

[35] Chen Rong, Wan chun-fen, Xue Song-tao, Tang He-sheng: Modification of Motion Equation of Timoshenko Beam and Its Effect, JOURNAL OF TONGJI UNIVERSITY (NATURAL SCIENCE), Vol.33, No.6, 2005(in Chinese).

2004

[36] Chen Rong, Zheng Hai-tao, Xue Song-tao, Tang He-sheng: Analysis on Transverse Impact Response of an Unrestrained Timoshenko Beam, Applied Mathematics and Mechanics, Vol.25, No.11, 2004.

[37] 唐和生，薛松涛，陈镕，王远功，基于小波变换在线结构损伤检测分析研究，固体力学学报，, Vol.25，No.1, 2004.

[38] 唐和生，薛松涛，陈镕，王远功, 利用组合参数的结构损伤识别及试验研究, 振动与冲击, Vol.23, No.4, 2004.

[39] 唐和生, 薛松涛, 陈镕，王远功：基于小波多分辨滤波特性的结构损伤识别．力学季刊, Vol.25, No.1, 2004.

2003

[40] 唐和生, 薛松涛, 陈镕，王远功： 小波基带宽的变化对结构损伤识别影响分析研究， 同济大学学报, Vol.31, No.8, 2003.

2001

[41] 唐和生, 薛松涛, 谢强, 基于小波变换的奇异信号分析, 上海海运学院学报, Vol.22, No. 3, 2001.

2000

[42] TANG He-sheng, XUE Song-tao, FAN Cun-xin, CHEN Rong: Analyses of the Non—linear Interaction of Laterally Loaded Piles and Multilayed Soil, Journal of Suzhou Institute of Urban Construction and Environmental Protection, Vol.13, No. 2, 2000 (in Chinese).

[43] Fan Cunxin, Tang He-sheng, Xue Song-tao, Chen Rong, Wang Yuan-gong: Intelligent Passive Vibration Control Systems, Journal of Shocking and Vibration, Vol. 19, No.4, 2000(in Chinese).

[44] TANG He-sheng, XUE Song-tao, CHEN Rong, WANG Yuan-gong: Application of the Green's Functions for the Settlement of Transversely—isotropic Layered Soil, JOURNAL OF TONGJI UNIVERSITY (NATURAL SCIENCE), Vol.28, No.5, 2000 (in Chinese).

1999

[45] Chen Rong, Tang Hesheng, Wang YuanGong: The Analysis For The Settlement of Single Pile In Layered Soil, Shanghai Journal of Mechanics, Vol.20, No.3, 1999(in Chinese).

[46] Tang Hesheng, Wang Yuangong, Chen Rong: Stress Analysis of Axisymmetrical Problems In Tranversely Isotropic Multilayered Elastic Half Space, Shanghai Journal of Mechanics, Vol.20, No.1, 1999(in Chinese).

Conference Proceedings

2010

[1] Fan Dewei，Tang Hesheng, Numerical computing method Based on Cellular Automata, 3rd International Conference on Computer and Electrical Engineering (ICCEE 2010), Nov.16-18, 2010,Chendu,China

[2] H. Tang, S. Xue, S. Takahashi, F. Li, APPLICATION OF PARTICLE SWARM OPTIMIZATION ALGORITHMS FOR STRUCTURAL DAMAGE IDENTIFICATION, Fifth World Conference on Structural Control and Monitoring(5wcscm), 12 - 14 JULY 2010,SHINJUKU, TOKYO.

[3]　J. Chen, L.Y. Xie, H.S. Tang, J. Zhou, APPLICATION OF DIFFERENTIAL EVOLUTION FOR STRUCTURAL SYSTEM IDENTIFICATION, Fifth World Conference on Structural Control and Monitoring(5wcscm, 12 - 14 JULY 2010,SHINJUKU, TOKYO.

[4]　R.Xu,H.Tang, S. Xue, Structural robust design based on Info-Gap model, Proceeding of the International Conference on Modelling and Computation in Engineering, CMCE2010,HongKong,6-7,Nov. 2010

2009

[5]　Pengfei Li, Hesheng Tang,"Parameter Estimation Using a SCE Strategy" ICONIP 2009 : 16th International Conference on Neural Information Processing, Bangkok, Thailand, December 1-5, 2009

[6]　Zhaoliang Wang, Hesheng Tang,"Optimum Design of Truss Structures Based on Differential Evolution Strategy", The International Conference on Information Engineering and Computer Science (ICIECS2009), Dec. 2009, Wuhan,China.

[7]　Zhang Liu, Hesheng Tang, Cunxin Fan,Parameter Estimation Using an Adaptive Immune Clone Selection Algorithm,2009 Global Congress on Intelligent Systems (GCIS 2009) May 19-21, 2009 Xiamen, China.

2008

[8]　Hesheng Tang, Wei Zhang, Cunxin Fan, Songtao Xue, Parameter Estimation Using a CLPSO Strategy, IEEE Congress on Evolutionary Computation (CEC 2008), June, 2008, Hong Kong.

[9]　H.S. Tang , S.T. Xue, C.X. Fan and X.N. Yang，SELF ADAPTIVE PARTICLE FILTER FOR STRUCTURAL SYSTEM IDENTIFICATION，The 14th World Conference on Earthquake Engineering October 12-17, 2008, Beijing, China.

2007

[10]　Hesheng Tang, Mikio Fukuda, Songtao Xue, Particle Swarm Optimization for Structural System Identification, the 6th International Workshop on Structural Health Monitoring, Stanford University, Stanford, CA 94305,USA.,Sep.11-13, 2007.

2006

[11]　Hesheng Tang, Songtao Xue, Auxiliary Particle Filter for Structural Damage Identification, Asia-Pacific Workshop on Structural Health Monitoring, Yokohama, Japan, Dec. 4-6, 2006

[12]　HeSheng Tang, Tadanobu Sato, Songtao Xue, Rong Chen, A Self-Organizing   Sequential Monte Carlo Filter for Nonlinear System Identification, 4th World Conference on Structural Control and Monitoring (4WCSCM) ,11-13 July 2006 in San Diego, California, U.S.A.

[13]　HeSheng Tang, Tadanobu Sato, Songtao Xue, Rong Chen, Sequential LS-SVM for Structural System Identification, Third European Workshop on Structural Health Monitoring, July 5-7, 2006, Univ. Politecnica Madrid, Univ. Granada, Granada, Spain.

[14]　Hesheng Tang, Songtao Xue, Rong Chen, On H ∞ Filtering in Feedforward Neural Networks Training and Pruning , the 3rd International Symposium on Neural Networks (ISNN2006), 29-31, May, 2006.

2005

[15]　H. Tang and T. Sato, SVD-based Derivative-Free Kalman Filter for Nonlinear Hysteretic Structural System Identification. In: G. Augusti, G.I. Schuëller, M. Ciampoli (Eds.), Safety and Reliability of Engineering Systems and Structures. ICOSSAR 2005 - Rome. Millpress, Rotterdam 2005, 2887-2893.

[16] He-Sheng Tang, Tadanobu Sato, Auxiliary particle filtering for structural system identification, SPIE's 12th Symposium on Smart Structures and Materials, San Diego, CA, USA, Mar. 2005.

[17] He-Sheng Tang, Tadanobu Sato, Online LS-SVM for Hysteretic Structural System Identification, The fourth KU-KAIST-NTU student seminar on Civil Engineering Research, Cheju, Korea, Feb. 2005

2004

[18] Hesheng TANG, Tadanobu SATO, Songtao XUE, H∞-NEURAL NETWORK TRAINING AND PRUNING FOR SYSTEM IDENTIFICATION, International Symposium on Network and Center-Based Research For Smart Structures Technologies and Earthquake Engineering (SE04), Osaka, Japan, July 6-9, 2004

[19] H. Tang and T. Sato, Structural Damage Detection Using the Neural Network and H∞ Algorithm, SPIE's 9th International Symposium of NDE for Health Monitoring and Diagnostics, San Diego, CA, USA, Mar. 2004.

2002

[20] Hesheng Tang, Xue Songtao, Xie Qiang, Chen Rong: Structural Damage Identification by Neural Networks and Modal Analysis, p1581-1586. IMAC-XX: Conference on Structural Dynamics, Feb, 2002, Los Angeles, California, USA.

[21] He-Sheng Tang, Song-Tao Xue, Rong Chen, and Yuan-Gong Wang: Wavelet Approach for Structural Damage Assessment, Seventh International Symposium on Structural Engineering for Young Exports, August 28-31 2002, Tianjin, China.

[22] Song-Tao Xue, He-Sheng Tang, Qiang Xie, and Hai-Tao Zheng: Structural Damage Assessment by Modal Flexibility, Seventh International Symposium on Structural Engineering for Young Exports, August 28-31 2002, Tianjin, China.

[23] Qiang Xie, Song-Tao Xue, He-Sheng Tang: Numerical Simulation and Tests Study on Frame Str, , uctural Damage Detection, Seventh International Symposium on Structural Engineering for Young Exports, August 28-31 2002, Tianjin, China.