

Tony Wen-Hann Sheu

Basic information

Birthday : April 23, 1954
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Position

Lifetime University Professor, Department of Engineering Science and Ocean Engineering, National Taiwan University (From 2006)

Education

- Ph.D., Purdue University; Department of Mechanical Engineering (1986)
- M.S., Northwestern University; Engineering Science and Applied Mathematics (1982)
- B.S., National Taiwan University; Department of Naval Architecture and Ocean Engineering (1981)

Research field

- Computational fluid dynamics
- Computational biology fluid dynamics
- Computational heat and mass transfer
- Computational optics and electromagnetics.

Awards & Honors

- Best SNAME annual paper award (1998)
- Distinguished young researcher award (1991)
- Distinguished research award of National Science Council of R. O. C. (1997-1999)
- Distinguished research award of National Science Council of R. O. C. (2000-2001)
- Distinguished research award of National Science Council of R. O. C. (2002-2006)
- Literati Club Awards for Excellence 2000,
- MCB University Press outstanding paper of Int. J. of Numerical Methods for Heat & Fluid Flow

Publication List

Tony Wen-Hann Sheu (許文翰)

April 27, 2011

(A) Referred Paper

- [1] A. Ecer, H. U. Akay, W. H. Sheu (1986), A variational finite element formulation for viscous compressible flows, ASME AMD, Vol. 78, pp. 5-17
- [2] Shi-Min Lee, Tony W. H. Sheu (1988), On a numerical study of combustion process within a marine Diesel engines, Journal of the Society of Naval Architecture and Marine Engineering, Republic of China, Vol. 7(1), pp. 17-24
- [3] Tony W. H. Sheu (1988), A variational finite element method for compressible Navier-Stokes flows, Lecture Notes in Engineering, Recent Advances in Computational Fluid Dynamics, Springer-Verlag, Vol. 43, pp. 263-276
- [4] Tony W. H. Sheu (1990), On the development of generalized variational functional for compressible Navier-Stokes Flows, Bulletin of the College of Engineering, National Taiwan University, Republic of China, No. 48, pp. 21-29
- [5] Tony W. H. Sheu, Y. C. Liao (1990), A space marching calculation method for three-dimensional flow problems, Bulletin of the College of Engineering, National Taiwan University, Republic of China, No. 49, pp. 109-122
- [6] Tony W. H. Sheu, T. C. Huang (1991), A finite element solution for a three-dimensional inviscid flow over a rectangular model car, Proceedings of the National Science Council, Republic of China, Vol. 15(3), pp. 268-274
- [7] T. W. H. Sheu, S. M. Lee, K. U. Yang, B. J. Y. Chiou (1991), A non-oscillating solution technique for skew upwind and QUICK-family schemes, Computational Mechanics, Vol. 8(6), pp. 365-382 (SCI)
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- [11] Tony W. H. Sheu, C. C. Fang (1994), A high resolution finite element analysis for nonlinear acoustics wave propagation, Journal of Computational Acoustics (JCA), Vol. 2(1), pp. 29-51 (SCI)
- [12] Tony W. H. Sheu, Shi-Min Lee (1995), Numerical study of two-dimensional solid-gas combustion through granulated Propellants, Numerical Heat Transfer. Part A: Applications, Vol. 27(4), pp. 395-415 (SCI)

- [13] Tony W. H. Sheu, S. M. Lee (1995), Analysis of combustion processes in a gun interior ballistics, *International Journal of Computational Fluid Dynamics*, Vol. 4, pp. 57-71 (SCI)
- [14] Tony W. H. Sheu, Morten M. T. Wang (1995), A comparison study on multivariant and univariant finite elements for three dimensional incompressible viscous flows, *International Journal for Numerical Methods in Fluids*, Vol. 21, pp. 683-696 (SCI)
- [15] Tony W. H. Sheu, S. F. Tsai, M. M. T. Wang (1995), A Petrov-Galerkin formulation for incompressible flows at high Reynolds numbers, *International Journal of Computational Fluid Dynamics*, Vol. 5, pp 213-230 (SCI)
- [16] Tony W. H. Sheu, S. M. Lee (1996), A segregated solution algorithm for incompressible flows in general co-ordinates, *International Journal for Numerical Methods in Fluids*, Vol. 22, pp. 1-34 (SCI)
- [17] T. P. Chiang, R. R. Hwang, W. H. Sheu (1996), Finite volume analysis of spiral motion in a rectangular lid-driven cavity, *International Journal for Numerical Methods in Fluids*, Vol. 23, pp. 1-22 (SCI)
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- [63] Tony W. H. Sheu, S. K. Wang, R. K. Lin (2000), An implicit scheme for solving the convection-diffusion-reaction equation in two dimensions, *Journal of Computational Physics*, Vol. 164(1), pp. 123-142 (SCI; Impact Factor: 1.550; Cited Half-life > 10.0; Ranking: 8/92)
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- [81] Tony W. H. Sheu, P. H. Lee (2003), A theoretical Taylor-Galerkin model for first-order hyperbolic equation, *International Journal for Numerical Methods in Fluids*, Vol. 42, 439-463 (SCI; Impact Factor: 0.544; Cited Half-life 7.7; Ranking: 42/74)
- [82] Tony W. H. Sheu, P. H. Lee, R. K. Lin (2003), Development of a high-resolution hyperbolic model on quadratic elements, *Computer Methods in Applied Mechanics and Engineering*, Vol. 192(44-46), pp. 5037-5056 (SCI; Impact Factor: 1.252; Cited Half-life 7.6; Ranking: 8/67) (Selected into Computer and Information System database from CSA)
- [83] P. G. Y. Huang, C. H. Lu, T. W. H. Sheu (2003), Numerical exploration of diffusion-controlled solid-state reactions in cubic particles, *Materials Science and Engineering B: Solid State Materials for Advanced Technology*, Vol. 103, pp. 77-82 (SCI; Impact Factor: 1.070; Cited Half-life 4.3) (Selected into Computer and Information System database from CSA)
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Book

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- [3] Tony W. H. Sheu, Y. H. Chen (1999), Three-dimensional underwater wave propagation in coupled fluid-elastic media, Theoretical and Computational Acoustics, Trieste, Italy, May 10-14
- [4] Tony W. H. Sheu, S. M. Lee, S. F. Tsai (1999), An in-house developed NOCSIM finite volume code for solving academic and practical flow problem, 國科會成立四十週年紀念邀請專題, 國家高速電腦中心, 新竹, 中華民國, April 28
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- [7] Tony W. H. Sheu (2001), Computational heat transfer and its application to design of fin-tube conjugate heat exchanger, Institute of Thermomechanics CAS, Praha, Czech Republic, August 8
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- [12] Tony W. H. Sheu (2002), An in-house developed general-purposed finite volume code for simulating flow/heat transfer problems, 中國科學院力學研究所 (Institute of Mechanics, Chinese Academy of Sciences), September 19
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- [123] Maxim A. Solovchuk, Tony W.H. Sheu, Shock wave structure in gases using bimodal distribution functions, Int. Congress on Acoustics, Sgdney, Australia, Aug. 23-27, 2010
- [124] Maxim A. Solovchuk, Tony W. H. Sheu. Prediction of shock structure by bimodal distribution function method. Proceedings of the Fifth European Computational Fluid Dynamics Conference (ECCOMAS CFD) Lisbon, Portugal (14-17), June , 2010.
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- [126] S.H. Kuo, C.Y. Chou, R.K. Lin, W.H. Sheu, Solving steady state Navier-Stokes equation in two dimension with hybrid computing, 22nd Int. Conf on Parallel CFD 2010, Kaohsiung, Taiwan, May17-21, 2010
- [127] Maxim Solovchuk, Tony W.H. Sheu, Marc Thiriet, High intensity focused ultrasound study for ablating liver tumor. Int Congress in Mathematical Fluid Dynamics and Its Applications, June 21-24, Renne, France, 2010
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- [130] Y.M. Lee, J.H. Li, S.Y. Chen, S.Y. Ma, K.Y. Tsai, T.W.H. Sheu, J.Y. Yen, Iterative finite-difference method for analyzing fabrication errors of lens-misaligned electron-beam direct-write lithography system, 23rd Int. Microprocesses and Nanotechnology Conference, Nov. 9-12, Japan, 2010
- [131] Maxim A. Solvchuk, Tony W.H. Sheu, Improvement on the Matt-smith modal for simulating a very strong shock wave, 第七屆海峽兩岸航空太空學術研討會, Taiwan, Nov.17, 2010

(D) Symposium Organizer

- [1] Biofluid symposium, The 11th National Computational Fluid Dynamics Conference, Taidon, Taiwan, Republic of China, August 5-8, 2006 (第11屆全國計算流體力學研討會)
- [2] Numerical analysis symposium, The 13th National Computational Fluid Dynamics Conference, Taipei county, Taiwan, Republic of China, August 17-19, 2006 (第13屆全國計算流體力學研討會)

(E) Other Activities

- [1] 指導建國中學學生彭陸, 蕭屹宏, 參加台灣2007年國際科學展覽會, “流體碰撞物體所產生的波形之研究與應用”, 獲得物理組佳作獎
- [2] Establish international network: Canada-France-Taiwan research term operated under INRIA-REO