

1. Frankel, S. H., and Madnia, C. K., and Givi, P., "Modeling of the Unmixedness in Homogeneous Reacting Turbulence", *Chemical Engineering Communications*, **104**, pp. 117-125, 1991.
2. Madnia, C. K., Frankel, S. H., and Givi, P., "Direct Numerical Simulations of the Unmixedness in a Homogeneous Reacting Turbulent Flow", *Chemical Engineering Communications*, **109**, pp. 19-29, 1991.
3. Frankel, S. H., Jiang, T. J., and Givi, P., "Modeling of Isotropic Reacting Turbulence by a Hybrid Mapping-EDQNM Closure", *American Institute for Chemical Engineering Journal*, **38**, (4), pp. 535-543, 1992.
4. Frankel, S. H., Madnia, C. K., and Givi, P., "Modeling of the Reactant Conversion Rate in a Turbulent Shear Flow", *Chemical Engineering Communications*, **113**, pp. 192-209, 1992.
5. Madnia, C. K., Frankel\*, S. H., and Givi, P., "Reactant Conversion in Homogeneous Turbulence: Mathematical Modeling, Computational Validations, and Practical Applications", *Theoretical and Computational Fluid Dynamics*, **4**, pp. 79-93, 1992.
6. Miller, R. S., Frankel, S. H., Madnia, C. K., and Givi, P., "Johnson-Edgeworth Translation for Probability Modeling of Binary Scalar Mixing in Isotropic Turbulence", *Combustion, Science and Technology*, **91**, pp. 21-52, 1993.
7. Frankel, S. H., Madnia, C. K., and Givi, P., "Comparative Assessment of Closures for Turbulent Reacting Flows", *American Institute for Chemical Engineering Journal*, **39**, (5), pp. 899-903, 1993.
8. Frankel, S. H., McMurtry, P. A., and Givi, P., "Binary Scalar Mixing in Homogeneous Turbulence: Some Linear Eddy Model Results", *Energy and Fuels*, **7**, (6), pp. 827-834, 1993.
9. Frankel, S. H., McMurtry, P. A., and Givi, P., "Linear Eddy Modeling of Reactant Conversion and Selectivity in Homogeneous Turbulence", *American Institute for Chemical Engineering Journal*, **41**, (2), pp. 258-266, 1995.
10. DesJardin, P. E. and Frankel, S. H., "Assessment of Turbulent Combustion Submodels Using the Linear Eddy Model", *Combustion and Flame*, **104**, (3), pp. 343-357, 1996.
11. DesJardin, P. E. and Frankel, S. H., "Linear Eddy Modeling of Nonequilibrium Turbulent Reacting Flows with Nonpremixed Reactants", *Combustion and Flame*, **109**, (3), pp. 471-487, 1997.
12. Zimberg, M. J., Frankel, S. H., Gore, J. P., and Sivathanu, Y. R., "A Study of Coupled Turbulent Mixing, Soot Chemistry, and Radiation Effects Using the Linear Eddy Model", *Combustion and Flame*, **113**,(3), pp. 454-469, 1998.

13. Zhang, D. and Frankel, S. H., "A Numerical Study of Natural Gas Combustion in a Lean Burn Engine", *Fuel*, **77**, (12), pp. 1339-1347, 1998.
14. DesJardin, P. E. and Frankel, S. H., "Large Eddy Simulation of a Nonpremixed Reacting Jet: Application and Assessment of Subgrid-Scale Combustion Models", *Physics of Fluids*, **10**, (9), pp. 2298-2314, 1998.
15. Costura, D. M., Lawless, P. B., and Frankel, S. H., "A Computational Model for the Study of Gas Turbine Combustor Dynamics", *Journal of Engineering Gas Turbines and Power*, **121**, pp. 243-248, April 1999.
16. DesJardin, P. E. and Frankel, S. H., "Two-Dimensional Large Eddy Simulation of Soot Formation in the Near-Field of a Strongly Radiating Nonpremixed Acetylene-Air Turbulent Jet Flame", *Combustion and Flame*, **119**, (1/2), pp. 121-132, 1999.
17. Zhao, W., Frankel, S. H., and Mongeau, L., "Effect of Trailing Jet Instability on Vortex Ring Formation", *Physics of Fluids*, **12**, (3), pp. 589-596, March 2000.
18. Glaze, D. J. and Frankel, S. H., "Effect of Dispersion Characteristics on Particle Temperature in a Nonpremixed Reacting Jet", *International Journal of Multiphase Flow*, **26**, pp. 609-633, 2000.
19. Zhao, W., Frankel, S. H., and Mongeau, L., "Effect of Spatial Filtering on Sound Radiation from a Subsonic Axisymmetric Jet", *AIAA (American Institute of Aeronautics and Astronautics) Journal*, **38**, (11), pp. 2032-2039, 2000.
20. Zhao, W., Frankel, S. H., and Mongeau, L., "Large Eddy Simulations of Sound Radiation from Subsonic Turbulent Jets", *AIAA Journal*, **39**, (8), pp. 1469-1477, 2001.
21. Zhao, W. and Frankel, S. H., "Numerical Simulations of Sound Radiation from Axisymmetric Premixed Flames", *Physics of Fluids*, **13**, (9), pp. 2671-2681, 2001.
22. Zhao, W., Frankel, S. H., and Mongeau, L., "Numerical Simulations of Sound from Confined Pulsating Axisymmetric Jets", *AIAA Journal*, **39**, (10), pp. 1868-1874, 2001.
23. Xing, T., and Frankel, S. H., "Effect of Cavitation on Vortex Dynamics in a Submerged Laminar Jet", *AIAA Journal*, **40**, (11), pp. 2266-2276, 2002.
24. Zhao, W., Zhang, C., Frankel, S. H., and Mongeau, L., "Computational Aeroacoustics of Phonation, Part I: Numerical Methods, Acoustic Analogy Validation, and Effects of Glottal Geometry", *Journal of Acoustical Society of America*, **112**, (5), pp. 2134-2146, 2002.

25. Zhang, C., Zhao, W., Frankel, S. H., and Mongeau, L., "Computational Aeroacoustics of Phonation, Part II: Effects of Subglottal Pressure, Glottal Oscillation Frequency, and Ventricular Folds", *Journal of Acoustical Society of America*, **112**, (5), pp. 2147-2154, 2002.
26. Zhang, Z., Mongeau, L., and Frankel, S. H., "Experimental Verification of the Quasi-Steady Assumption for Aerodynamic Sound Generation by Pulsating Jets in Tubes", *Journal of Acoustical Society of America*, **112**, (4), pp. 1652-1663, 2002.
27. Zhang, Z., Mongeau, L., and Frankel, S. H., "Broadband Sound Generation by Confined Turbulent Jets", *Journal of Acoustical Society of America*, **112**, (2), pp. 677-689, 2002.
28. Singh, K., Frankel, S. H., and Gore, J. P., "Effects of Combustion on the Sound Pressure Generated by Circular Jet Flows," *AIAA Journal*, **41**, (2), pp. 319-321, 2003.
29. Glaze, D. and Frankel, S. H., "Stochastic Inlet Conditions for Large Eddy Simulation of a Fully Turbulent Jet", *AIAA Journal*, **41**, (6), pp. 1064-1073, 2003.
30. Varghese, S. S. and Frankel, S. H., "Numerical Modeling of Pulsatile Turbulent Flow in Stenotic Vessels", *Journal of Biomechanical Eng.*, **125**, (4), pp. 445-460, 2003.
31. Singh, K. K., Frankel, S. H., and Gore, J. P., "Study of Spectral Noise Emissions from Standard Turbulent Nonpremixed Flames," *AIAA Journal*, **42**, (5), pp. 931-936, 2004.
32. Zhang, Z., Mongeau, L., Frankel, S. H., Thomson, S., Park, J., "Sound Generation by Steady Flow through Glottis-Shaped Orifices", *Journal of Acoustical Society of America*, **116**, (3), pp. 1720-1728, 2004.
33. Li, G., Frankel, S. H., Braun, J. E., and Groll, E. A., "Application of CFD Models to Two-Phase Flow in Refrigerant Distributors", *International Journal of Heating, Ventilating, Air-Conditioning and Refrigeration Research*, **11**, (1), pp. 45-62, 2005.
34. Xing, T., Li, Z., and Frankel, S. H., "Numerical Simulation of Vortex Cavitation in a Three Dimensional Submerged Transitional Jet", *Journal of Fluids Engineering*, **127**, (4), pp. 714-725, 2005.
35. Thomson, S. L., Mongeau, L., and Frankel, S. H., "Aerodynamic Transfer of Energy to the Vocal Folds," *Journal of Acoustical Society of America*, **118**, (3), pp. 1689-1700, 2005.
36. Suh, J., Frankel, S. H., Mongeau, L., and Plesniak, M. W., "Compressible Large Eddy Simulation of Wall-Bounded Turbulent Flows Using a Semi-Implicit Numerical Scheme for Low Mach Number Aeroacoustics", *Journal of Computational Physics*, **215**, pp. 526-551, 2006.

37. Singh, K. P., Mongeau, L., Frankel, S. H., and Gore, J., "Effect of Co- and Counter-Swirl on Noise Emission from Swirling Non-reacting Flows and Flames", *AIAA Journal*, **45**(3), pp. 651-661, 2007.
38. Thomson, S. L., Mongeau, L., and Frankel, S. H., "Flow over a Membrane-Covered, Fluid-Filled Cavity", *Computers and Structures*, **85**, pp. 1012-1019, 2007.
39. Varghese, S. S., Frankel, S. H., and Fischer, P. F., "Direct Numerical Simulation of Stenotic Flows, Part I: Steady Flow", *Journal of Fluid Mechanics*, **582**, 253-280, 2007.
40. Varghese, S. S., Frankel, S. H., and Fischer, P. F., "Direct Numerical Simulation of Stenotic Flows, Part II: Pulsatile Flow", *Journal of Fluid Mechanics*, **582**, 281-318, 2007.
41. Chandy, A., Glaze, D. J., and Frankel, S. H., "Parallelizing the Discrete Ordinates Method (DOM) for Three-Dimensional Radiative Heat Transfer Calculations Using a Priority Queuing Technique", *Numerical Heat Transfer, Part B: Fundamentals*, **52**, 33-49, 2007.
42. Suh, J. and Frankel, S. H., "Numerical Simulation of Turbulence Transition and Sound Radiation of Flow through a Rigid Glottal Model", *Journal of Acoustical Society of America*, **121**(6), 3728-3739, 2007.
43. Throckmorton, A. L., Myers, C. D., Ballman, K. K., Frankel, S. H., Litwak, K., Rodefeld, M. D., "Mechanical Cavopulmonary Assist for the Univentricular Fontan Circulation using a Novel Folding Propeller Blood Pump", *ASAIO J.*, **53**, 734-741, 2007.
44. Varghese, S., Frankel, S. H., and Fischer, P., "Modeling Transition to Turbulence in Eccentric Stenotic Flows", *Journal of Biomechanical Engineering*, **130**(1), 7 pages, 2008.
45. Suh, J. and Frankel, S. H., "Comparing Turbulence Models for Flow through Rigid Glottal Model", *Journal of Acoustical Society of America*, **123**(3), 1237-1240, 2008.
46. Throckmorton A, Ballman K, Myers CD, Frankel SH, Brown JW, Rodefeld MD. Performance of a 3-bladed Propeller Pump to Provide Cavopulmonary Assist in the Failing Fontan Circulation, *Ann. Thorac. Surg.*, **86**, 1343-1347, 2008.
47. Chandy, A., Glaze, D. J., Frankel, S. H., "A Hybrid LES/Filtered Mass Density Function Approach for the Calculation of Strongly Radiating Turbulent Flames", *J. of Heat Transfer*, **131**(5), 9 pages, 2009.
48. Chandy, A. and Frankel, S. H., "Regularization-based Subgrid-Scale (SGS) Models for Large Eddy Simulation (LES) of High-Re Decaying Isotropic Turbulence", *J. of Turbulence*, **10**(25), 1-22, 2009.
49. Chandy, A. and Frankel, S. H., "The t-model as a Large Eddy Simulation Model for the Navier-Stokes Equations", *Multiscale Modeling and Simulation*, **8**(2), pp. 445-462, 2009.

50. Shetty, D., Chandy, A., and Frankel, S. H., "A new fractal IEM mixing model for LES/FMDF applied to a multi-scalar three-stream turbulent jet", *Phys. Fluids*, **22**, 025102, 2010.
51. Shetty, D., Shen, J., Chandy, A. J., Frankel, S. H., "A Pressure Correction Scheme for Rotational Navier-Stokes Equations and its Application to Rotating Turbulent Flows", *Comm. Comp. Phys.*, Special Issue for David Gottlieb, 9, pp. 740-755, 2010.
52. Dittakavi, N., Chunekar, A., and Frankel, S. H., "Large Eddy Simulation of Turbulent-Cavitation Interactions in a Venturi Nozzle", *J. Fluids Eng.*, **132**(12), 2010.
53. Rodefeld, M. D., Coats, B., Fisher, T., Giridharan, G. A., Chen, J., Brown, J. W., and Frankel, S. H., "Cavopulmonary Assist for Univentricular Fontan Circulation: von Karman Viscous Impeller Pump (VIP)", *J. Thoracic and Cardiovascular Surgery*, **140**(3), pp. 529-536, 2010.
54. Shetty, D., Fisher, T., Chunekar, A., and Frankel, S. H., "High-Order Incompressible Large Eddy Simulation of Fully Inhomogeneous Turbulent Flows", *Journal of Computational Physics*, **229**(23), pp. 8802-8822, 2010.
55. Chandy, A. and Frankel, S. H., "Leray-alpha LES of Magnetohydrodynamic Turbulence at Low Magnetic Reynolds Number", *Journal of Turbulence*, **12**(17), 2011.
56. Fisher, T. C., Carpenter, M. H., Yamaleev, N., and Frankel, S. H., "Boundary Closures for Fourth-Order Energy Stable Weighted Essentially Non-Oscillatory Finite Difference Schemes", *Journal of Computational Physics*, **230**, pp. 3727-3752, 2011.
57. Kennington, J. R., Frankel, S. H., Chen, Jun, Koenig, S. C., Sobieski, M. A., Giridharan, G. A., Rodefeld, M. D., "Design Optimization and Performance Studies of an Adult Scale Viscous Impeller Pump for Powered Fontan in an Idealized Total Cavopulmonary Connection", *Cardiovascular Engineering and Technology*, **2**(4), pp. 237-243, 2011.
58. Cao, Y., Daskin, A., Frankel, S. H., and Kais, S., "Quantum Circuit Design for Solving Linear Systems of Equations", *Molecular Physics*, **110** (15-16), pp. 1675-1680, 2012.
59. Giridharan G. A., Koenig, S. C., Kennington, J., Sobieski, M. A., Chen, J., Frankel, S. H., and Rodefeld, M. D., "Performance Evaluation of a Pediatric Viscous Impeller Pump for Fontan Cavopulmonary Assist", *J. Thoracic and Cardiovascular Surgery*, **145**(1), pp. 249-254, 2013.
60. Ghaisas, N., Shetty, D., and Frankel, S. H., "Large Eddy Simulation of Thermal Driven Cavity: Evaluation of Sub-grid Scale Models and Flow Physics", *International Journal of Heat and Mass Transfer*, **56** (1-2), pp. 606-624, 2013.
61. Delorme, Y., Anupindi, K., Kerlo, A. E., Shetty, D., Rodefeld, M., Chen, J., and Frankel, S. H., "Large Eddy Simulation of Powered Fontan Hemodynamics", *J. Biomechanics*, **46**(2), pp. 408-422, 2013.
62. Shetty, D. A. and Frankel, S. H., "Assessment of Stretched Vortex Subgrid-Scale Models for LES of Incompressible Inhomogeneous Turbulent Flow", *Int. J. Numer. Meth. Fluids*, doi: 10.1002/flid.3793, 2013.

63. Kerlo, A. M., Delorme, Y. T., Xu, D., Frankel, S. H., Giridharan, G. A., Rodefeld, M. D., and Chen, J., “Experimental Characterization of Powered Fontan Hemodynamics in an Idealized Total Cavopulmonary Connection Model”, *Exps. Fluids*, **54**:1581, 2013.
64. Delorme, Y. T., Anupindi, K., and Frankel, S. H., “Large Eddy Simulation of FDA’s Idealized Medical Device”, *Cardiovascular Engineering and Technology*, in press, on-line access, 2013.
65. Anupindi, K., Delorme, Y., Shetty, D., and Frankel, S. H., “A Novel Multiblock Immersed Boundary Method for Complex Arterial Hydrodynamics”, *J. Comput. Phys.*, **254**, pp. 200-218, 2013.
66. Anupindi, K., Lai, W., and Frankel, S. H., “Characterization of oscillatory instability in lid driven cavity flows using lattice Boltzmann method”, accepted for publication, *Computers and Fluids*, 2013.
67. Ghaisas, N. and Frankel, S. H., “A priori evaluation of large eddy simulation subgrid-scale scalar flux models in isotropic passive-scalar and anisotropic buoyancy-driven homogeneous turbulence”, accepted for publication, *J. of Turbulence*, 2013.