CURRICULUM VITAE
(abbreviated)

James J. Riley

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General biographical information

Basic Data

Name: James J. Riley
Professor, Mechanical Engineering
Adjunct Professor, Applied Mathematics

Educational History

Degrees: Ph.D., Fluid Mechanics, The Johns Hopkins University, 1972
Thesis supervisor: Stanley Corrsin
B.A., Physics, Rockhurst College, 1965

Employment History

Acting chair, Mechanical Engineering, University of Washington, 1997 to 1999
Professor, Mechanical Engineering, University of Washington, 1985 to present
Adjunct Professor, Applied Mathematics, University of Washington, 1985 to present
Adjunct Professor, Aeronautics & Astronautics, University of Washington, 2011 to present
Associate Professor, Mechanical Engineering, University of Washington, 1983 to 1985
Department Manager and Program Manager, Flow Industries, Inc., 1977 to 1983
Senior Research Scientist, Flow Industries, Inc., 1975 to 1983
Research Scientist, Flow Industries, Inc., 1973 to 1975
Research Physicist, Naval Research Laboratory, 1972 to 1973
Post-Doctoral Visiting Scientist, National Center for Atmospheric Research, 1971 to 1972
Chaire de Mathematiques Industrielles, l'Université Joseph Fourier, Grenoble, France, 1989 to 1992 (part-time, visiting chaired position)

Awards/Honors:

National Academy of Engineering
Washington State Academy of Sciences
Senior Visiting Fellow, Isaac Newton Institute,
Cambridge University, Cambridge, U.K.
NATO Research & Technology Organization Lecturer,
Universidad Politecnica de Madrid, Spain
Director's Award, US Geological Service (2010)
Invited lecturer, Midwest Universities Lecture Tour (twice)
Visiting Award from Université Paul Sabatier,
Toulouse, France (twice)
PACCAR Professor of Engineering
Fellow, American Physical Society (1988)
Chair, Division of Fluid Dynamics, American Physical Society (twice)
Fellow, American Society of Mechanical Engineers (2003)
Fellow, American Association for the Advancement of Science (2018)
Fellow, Institute of Physics (2004)
Senior Scientific Fellow, Battelle Pacific Northwest National
Laboratories (1989)
Chaire de Mathematiques Industrielles, l'Université Joseph Fourier,
Grenoble, France (visiting chaired professorship)
Fellow, Center for Turbulence Research (Stanford/NASA Ames)
German Government Sabbatical Leave Fellowship
Australian Government Gleddon Visiting Fellowship
2016 Success Story, U. S. Navy
High Performance Computing Program
Honored in Special Session,
International Symposium on Stratified Flows (2016)

Consulting:

Nu Power Technologies (board of advisors), May, 2002 to 2005
Midwest Dental Products, March, 2000 to March, 2001
Northwest Research Associates, 1990 to present
Battelle Pacific Northwest National Laboratories, 1989 to present
Corbis, Inc., 1995
Los Alamos National Laboratory, 1992
Flow Industries, Inc., 1983 to 1985

Publications

According to the *Google Scholar*, publications authored or coauthored by Professor Riley have been cited over 9,400 times with an h-index of 43.

1. Refereed Archival Journal Publications

Gregg, M. C. E. A. D'Asaro, J. J. Riley, and E. Kunze. "Mixing efficiency in the ocean", *Annu. Rev. Mar. Sci.*, bf 10:443-474, 2018.

Watanabe, T., J. J. Riley, and K. Hagata. 2017. "Turbulent entrainment across turbulent/nonturbulent interfaces in stably stratified mixing layers", *Phys. Rev. Fluids*, **2**(10): 104803., 2017..

Riley, J. J., O. Flores, and A. R. Horner-Devine. 2017. "On the dynamics of turbulence near a free surface", *J. Fluid Mech.*, **821**:248-265.

Watanabe, T., J. J. Riley, and K. Nagata. 2016. "Effects of stable stratification on turbulent/non-turbulent interfaces in turbulent mixing layers", *Phys. Rev. Fluids*, **1**:044301.

Watanabe, T., J. J. Riley, S. M. de Bruyn Kops, P. J. Diamessis, and Q. Zhou. 2016. "Turbulent/non-turbulent interfaces in wakes in stably stratified fluids", *J. Fluid Mech.*, **797**:R1.

Sudharsan, M., S. L. Brunton, and J. J. Riley. 2016. "Lagrangian coherent structures and inertial particle dynamics", *Phy. Rev. E*, **93**(3):033108.

Thyng, K. M., J. J. Riley, and J. Thomson. 2013. "Inference of turbulence parameters from a ROMS simulation using the k-ϵ closure scheme", *Ocean Modeling*, **72**:104-118.

Hinz, D. F., T.-Y. Kim, J. J. Riley, and E. Fried. 2013. "*a priori* testing of α-regularisation models as subgrid-scale closures for large-eddy simulations", *J. Turbulence*, **14**(6):1-20.

McGah, P. M., D. F. Leotta, K. W. Beach, R. E. Zierler, J. J. Riley, and A. Aliseda. 2012. "Hemodynamic conditions in a failing peripheral artery bypass graft", *J. Vasc. Surg.*, **56**(2):403-409.

Kim, J. H., et al. 2012. "Immunosensor towards low-cost, rapid doagnosis of tuberculosis", *Lab on a Chip*, **12**(8):1437-1440.

Lee, H. B., et al. 2012. "Enhanced bioreaction efficiency of a microfluidic mixing toward high-throughput and low-cost bioassays, **12**(1-4):143-156.

Kongthon, J., J. H. Chung, J. J. Riley, and S. Devasia. 2011. "Dynamics of cilia-based microfluidic devices", **133**(5):051012.

Flores, O., and J. J. Riley. 2011. "Analysis of turbulence collapse in the stably stratified surface layer using direct numerical simulation", *Bound. Layer Meteor.*, **139**(2):241-259.

McGah, P. M., D. F. Leotta, K. W. Beach, J. J. Riley, and A. Aliseda. 2011. "A longitudinal study of remodeling in a revised peripheral artery bypass graft using 3D ultrasound imaging and computational hemodynamics", *J. Biomech. Engr.–Trans. ASME*, **133**(4):041008.

Schumacher, K. R., J. J. Riley, and B. A. Finlayson. 2011. "Turbulence in ferrofluids in channel flow with steady and oscillating magnetic fields", *Phys. Rev. E*, **83**(1):016307.

Wetchagarun, S., and J. J. Riley. 2010. "Dispersion and temperature statistics of inertial particles in isotropic turbulence", *Phys. Fluids*, **22**(6):063301.

Schumacher, K. R., J. J. Riley and B. A. Finlayson. 2010. "Effects of an oscillating magnetic field on homogeneous ferrofluid turbulence", *Phys. Rev. E*, **81**(1):016317.

Oh, K., B. Smith, S. Devasia, J. J. Riley, and J. H. Chung. 2010. "Characterization of mixing performance for bio-mimetic silicone cilia", *Microfluid. Nanofluid.*, **9**(4-5):645-655.

Oh, K., J. H. Chung, S. Devasia, and J. J. Riley. 2009. "Bio-mimetic silicone cilia for microfluidic manipulation", *Lab on a Chip*, **9**(11):1561-1566.

Schwarzkopf, J. D., C. T. Crowe, J. J. Riley and S. Wetchagarun. 2009. "Direct numerical simulation of stationary particles in homogeneous turbulence decay: Application of the k-epsilon model", *Int. J. Multiphase Flow*, **35**(5):411-416.

Berrouk, A. K., D. E. Stock, D. Lawrence and J. J. Riley. 2008. "Heavy particle dispersion from a point source in turbulent pipe flow", *Int. J. Multiphase Flow*, **34**(10), pp. 916-923.

Nichols-Pagel, G. A., D. B. Percival, P. G. Reinhall, and J. J. Riley. 2008. "Should structure functions be used to estimate power laws in turbulence? A comparative study", *Physica D – Nonlin. Phen.*, **237**(5), pp. 665-677.

Schumacher, K. R., J. J. Riley, and B. A. Finlayson. 2008. "Homogeneous turbulence in ferrofluids with a steady magnetic field", *J. Fluid Mech.*, **599**, pp. 1-28.

Riley, J. J., and E. Lindborg. 2008. "Stratified turbulence: a possible interpretation of some geophysical turbulence measurements", *J. Atmos. Sci.*, **65**(7), pp 2416-2424.

E. Lindborg and J. J. Riley. 2007. "A condition on the average Richardson number for weak nonlinearity of internal gravity waves", *Tellus Series A – Dyn. Meteorol. and Ocean.*, **59**(5), pp. 781-784.

Berrouk, A. S., D. Laurence, J. J. Riley, and D. E. Stock. 2007. "Stochastic modeling of heavy particle dispersion by subfilter motion for LES of high Reynolds number pipe flow", *J. Turbulence*, **8**(50), pp. 1-20.

Oh, K., J.-H. Chung, J. J. Riley, Y.-L. Liu, and W.-K. Liu. 2007. "Fluid flow-assisted dielectrophoretic assembly of nonowires", *Langmuir*, **23**(23), pp. 11932-11940.

Nichols, J. W., P. J. Schmidt, and J. J. Riley. 2007. "Self-sustained oscillations in variable-density jets", *J. Fluid Mech.*, **582**, pp. 341-376.

Riley, J. J. 2006. "Review of large-eddy simulation of non-premixed turbulent combustion", *J. Fluids Engr. – Trans. ASME*, Vol. 128(2), pp. 209-215.

Mitarai, S., J. J. Riley, and G. Kosály. 2005. "Testing of turbulent mixing models for Monte-Carlo PDF simulations", *Phys. Fluids*, Vol. 17(4), Art. No. 047101.

Mitarai, S., G. Kosály, and J. J. Riley. 2004. "A new Lagrangian flamelet model for local flame extinction and re-ignition", *Comb. Flame*, Vol. 137(3), pp. 306-319.

Sripakagorn, P., G. Kosály, and J. J. Riley. 2004. "Investigation of the influence of the initial Reynolds number on extinction and reignition", *Comb. Flame*, Vol. 136, pp. 351-363.

Mitarai, S., J. J. Riley, and G. Kosály. 2003. "A Lagrangian study of scalar diffusion in isotropic turbulence with chemical reaction", *Phys. Fluids*, Vol. 15, pp. 3856-3866.

Martin, S. M., G. Kosály, J. C. Kramlich, and J. J. Riley. 2003. "The premixed conditional moment closure method applied to idealized lean premixed gas turbine combustors", *J. Engr. for Gas Turbines and Power*, Vol. 125, pp. 895-900.

Riley, J. J., and S. M. de Bruyn Kops. 2003. "Dynamics of turbulence strongly influenced by buoyancy", *Phys. Fluids*, Vol. 15, pp. 2047-2059.

de Bruyn Kops, S. M., and J. J. Riley. 2003. "Large-eddy simulation of a reacting scalar mixing layer with Arrhenius chemistry", *Comp. and Math. with Applns.*, Vol. 46, pp. 547-569.

Yanase, S., M. Jizuguchi, and J. J. Riley. 2001. "Rotating magnetohydrodynamic free-shear flows. I. Linear stability analysis", *Phys. Fluids*, Vol. 13, pp. 1946-1955.

de Bruyn Kops, S. M., J. J. Riley, and G. Kosály. 2001. "Direct numerical simulation of reacting scalar mixing layers", *Phys. Fluids*, Vol. 13, pp. 1450-1465.

de Bruyn Kops, S. M., and J. J. Riley. 2001. "Mixing models for large-eddy simulation of non-premixed turbulent combustion", *J. Fluids Engr.–T. ASME*, Vol. 123, pp. 341-346.

de Bruyn Kops, S. M., and J. J. Riley. 2001. " Large-eddy simulation of non-premixed reacting flows with Arrhenius chemistry", *Comp. Math. with Applications*, to appear.

de Bruyn Kops, S. M., and J. J. Riley. 2000. "Re-examining the thermal mixing layer with numerical simulations", *Phys. Fluids*, Vol. 12, pp. 185-192.

Heo, B., I.-Y. Shen, and J. J. Riley. 2000. "Reducing disk flutter by improving aerodynamic design of base castings", *IEEE T. Magn.*, Vol. 36, pp. 2222-2224.

Cook, A. W., and J. J. Riley. 1998. "Subgrid-scale modeling for turbulent, reacting flows", *Comb. Flame*, Vol. 112, pp. 593-606.

de Bruyn Kops, S. M., and J. J. Riley. 1998. "Direct numerical simulation of laboratory experiments in isotropic turbulence", *Phys. Fluids*, Vol. 10(9), pp. 2125-2127.

Slinn, D. N., and J. J. Riley. 1998. "A model for the simulation of turbulent boundary layers in an incompressible stratified flow", *J. Comp. Phys.*, Vol. 144, pp. 550-602.

Slinn, D. N., and J. J. Riley. 1998. "Turbulent dynamics of a critically reflecting internal gravity wave", *Theoret. Comp. Fl. Dyn.*, Vol. 11, pp. 281-303.

de Bruyn Kops, S. M., J. J. Riley, G. Kosály and A. W. Cook. 1998. "Investigation of moodeling for non-premixed turbulent combustion", *Flow, Turb. Comb.*, Vol. 60, pp. 105-122.

Cook, A. W., J. J. Riley, and G. Kosály. 1997. "A laminar flamelet approach to subgrid-scale chemistry in turbulent flows", *Comb. Flame*, Vol. 109, pp. 332-341.

de Bruyn Kops, S. M., and J. J. Riley. 1997. "Scalar transport characteristics of the linear-eddy model", *Comb. Flame*, Vol. 112, pp. 253-260.

Montgomery, C. J., G. Kosály, and J. J. Riley. 1997. "Direct numerical simulation of turbulent nonpremixed combustion with multistep hydrogen-oxygen kinetics", *Comb. Flame*, Vol. 109, pp. 113-144.

Cook, A. W., and J. J. Riley. 1996. "Direct numerical simulation of a turbulent reactive plume on a parallel computer", *J. Comp. Physics*, Vol. 129, pp. 263-283.

Lombard, P. N., and J. J. Riley. 1996. "Instability and breakdown of internal gravity waves. 1. Linear stability analysis", *Phys. Fluids*, Vol. 8, pp. 3271-3287.

Slinn, D. N., and J. J. Riley. 1996. "Turbulent mixing in the oceanic boundary layer caused by internal wave reflection from sloping terrain", *Dynam. Atmos. Oceans*, Vol. 24, pp. 51-62.

Lombard, P. N., and J. J. Riley. 1996. "On the breakdown into turbulence of propagating internal waves", *Dynam. Atmos. Oceans*, Vol. 23, pp. 345-355.

Mètais, O., P. Bartello, E. Garnier, J. J. Riley, and M. Lesieur. 1996. "Inverse cascade in stably-stratified rotating turbulence", *Dyn. Atmos. Oceans*, Vol. 23, pp. 193-203.

Metais, O., C. Flores, S. Yanase, J. J. Riley and M. Lesieur. 1995. "Rotating free-shear flows. Part 2. Numerical simulations", *J. Fluid Mech.*, Vol. 293, pp. 47-80.

Winters, K. B., Lombard, P. N., J. J. Riley, and E. D'Asaro. 1995. "Available potential energy and mixing in density-stratified fluids", *J. Fluid Mech.*, Vol. 289, pp. 115-128.

Cook, A. W., and J. J. Riley. 1994. "A subgrid model for equilibrium chemistry in turbulent flows", *Phys. Fl.*, Vol. 6(8), pp. 2868-2870.

Mell, W. E., V. Nilsen, G. Kosály, and J. J. Riley. 1994. "Investigation of closure models for nonpremixed turbulent reacting flows", *Phys. Fl.*, Vol. 6(3), pp. 1331-1356.

Mell, W. E., V. Nilsen, G. Kosály, and J. J. Riley. 1993. "Direct numerical simulation investigation of the conditional moment closure model for nonpremixed turbulent reacting flows", *Combust. Sci. Tech.*, Vol. 91, pp. 179-186.

Yanase, S., C. Flores, O. Métais, and J. J. Riley. 1993. "Rotating free shear flows. Part 1: linear stability analysis", *Phys. Fl.*, Vol. 5(11), pp. 2725-2737.

Montgomery, C. J., G. Kosály, and J. J. Riley. 1993. "Direct numerical simulation of turbulent reacting flow using a reduced hydrogen-oxygen mechanism", *Combust. Flame*, Vol. 95, pp. 247-260.

Winters, K. B., and J. J. Riley. 1992. "Instability of internal waves near a critical level", *Dynam. Atmos. Oceans*, Vol. 16, pp. 249-278.

Chen, C., J. J. Riley, and P. A. McMurtry. 1991. "An investigation of Favre averaging in turbulent flows with chemical reaction", *Combust. Flame*, Vol. 87, pp. 257-277.

Lelong, M.-P., and J. J. Riley. 1991. "Internal wave–vortical mode interactions in strongly stratified flows", *J. Fluid Mech.*, Vol. 232, pp. 1-19.

Mell, W. E., G. Kosaly, and J. J. Riley. 1991. "The length-scale dependence of scalar mixing", *Phys. Fl.*, Vol. 3A(10), pp. 2472-2477.

Frank, A., B. Balick, and J. Riley. 1990. "Stellar Wind Paleontology - Shells and Halos of Planetary Nebula", *Astron. J.*, Vol. 100, pp. 1903-1914.

Jou, W.-H., and J. J. Riley. 1989. "Progress in direct numerical simulations of turbulent reacting flows", *AIAA J.*, Vol. 27(11), pp. 1543-1556.

McMurtry, P. A., J. J. Riley, and R. W. Metcalfe. 1989. "Effects of Heat Release on Large-Scale Structures in Turbulent Mixing Layers", *J. Fluid Mech.*, Vol. 199, pp. 297-332.

Staquet, C., and J. J. Riley. 1989. "On the Velocity Field Associated with Potential Vorticity", *Dyn. Atmos. Oceans*, Vol. 14, pp. 93-123.

Soetrisno, M., D. S. Eberhardt, J. J. Riley, and P. A. McMurtry. 1989. "A Study of Inviscid, Supersonic Mixing Layers Using a Second-Order TVD Scheme", *AIAA J.*, Vol. 27, pp. 1770-1778.

Domaradzki, J. A., R. W. Metcalfe, R. S. Rogallo, and J. J. Riley. 1987. "Analysis of Subgrid-Scale Viscosity with Use of Results from Direct Numerical Simulations", *Phys. Rev. Let.*, Vol. 58, No. 6, pp. 547-550, February.

Metcalfe, R. W., S. A. Orszag, M. E. Brachet, S. Menon, and J. J. Riley. 1987. "Secondary Instability of a Temporally-Growing Mixing Layer", *J. Fluid Mech.*, Vol. 184, pp. 207-243.

Riley, J. J., R. W. Metcalfe, and S. A. Orszag. 1986. "Direct numerical simulations of chemically reacting mixing layers", *Phys. Fluids*, Vol. 29(2), pp. 406-422.

McMurtry, P. A., W.-H. Jou, J. J. Riley, and R. W. Metcalfe. 1986. "Direct Numerical Simulations of Mixing Layers with Heat Release", *AIAA J.*, Vol. 24, No. 6, p. 962, June.

Metcalfe, R. W., C. J. Rutland, J. H. Duncan, and J. J. Riley. 1986. "Numerical Simulations of Active Stabilization of Laminar Boundary Layers", *AIAA J.*, Vol. 24, No. 9, p. 1494, September.

Gore, R. A., C. T. Crowe, T. R. Troutt, and J. J. Riley. 1985. "A Numerical Study of Particle Dispersion in Large-Scale Structures", *Multi-Phase Flow and Heat Transfer*, HTD Vol. 47, Bk. No. 600304.

Maxey, M. R., and J. J. Riley. 1983. "Equation of Motion for a Small Rigid Sphere in a Nonuniform Flow", *Phys. Fl*, Vol. 26, March, pp. 883-889.

Gad-el-Hak, M., R. F. Blackwelder, and J. J. Riley. 1983. "On the Interaction of Compliant Coatings with Boundary Layer Flows", *J. Fluid Mech.*, Vol. 140, pp. 257-280.

Gad-el-Hak, M., R. F. Blackwelder, and J. J. Riley. 1981. "On the Growth of Turbulent Regions in Laminar Boundary Layers", *J. Fluid Mech.*, Vol. 110, pp. 73-95.

Riley, J. J., and S. Corrsin. 1974. "The Relation of Turbulent Diffusivities to Lagrangian Velocity Statistics for the Simplest Shear Flow", *J. Geophys. Res.*, Vol. 79, pp. 1768-1771.

Riley, J. J., and G. S. Patterson, Jr. 1974. "Diffusion Experiments with Numerically Integrated Isotropic Turbulence", *Phys. Fl.*, Vol. 17, pp. 292-297.

Riley, J. J. 1973. "Relating One-Point Concentration Moments of a Chemical Reactant to the Lagrangian Probability Density", *Phys. Fl.*, Vol. 16, pp. 1161-1162.

Herring, J. R., J. J. Riley, G. S. Patterson, Jr., and R. H. Kraichnan. 1973. "Growth of Uncertainty in Decaying Isotropic Turbulence", *J. Atmos. Sci.*, Vol. 30, pp. 997-1006.

6.2 Recent Conference Proceedings

Riley, J. J. T. Watanabe, S. M. de Bruyn Kops, P. Diamessis, and Q. Zhou. 2016. "On the dynamics of turbulent/non-turbulent interfaces in stably-stratified fluids", Royal Society Colloquium on Stratified Turbulence in the 21st Century, Chicheley Hall, UK.

Riley, J. J., O. Flores, and S. M. de Bruyn Kops. 2015. "Analogies between stratified turbulence, near free surface turbulence, and thin layer turbulence", Euromech Colloquium 567, Cambridge, UK.

Riley, J. J., O. Flores, and S. M. de Bruyn Kops. 2014. "On analogies between stratified turbulence, near free surface turbulence, and thin layer turbulence", Fundamental Aspects of Geophysical Turbulence, Nagoya, Japan.

Riley, J. J., and O. Flores. 2013. "On dynamical similarities between flows with inhibited vertical motions", LANL Ocean Turbulence Conference, Sante Fe, NM.

Riley, J. J., O. Flores, and A. R. Horner-Devine. 2012. "On the dynamics of homogeneous turbulence near a stress-free surface", ICTAM 2012, Beijing, China.

Riley, J. J., and K. Thyng. 2011. "Some fluid dynamical issues in the siting of turbines for tidal energy", ASME-JSME-KSME, Hamamatsu, Japan.

Riley, J. J., and V. Vasan. 2009. "On spectral energy transfer in strongly stratified flows", Euromech Colloquium 512, Turin, Italy.

Riley, J. J., and V. Vasan. 2009. "On spectral energy transfer in strongly stratified flows", 12th European Turbulence Conference, Marburg, Germany.

Oh, K., J.-H. Chung, S. Devasia, and J. J. Riley. 2007. "Fluid manipulation by bio-mimetic cilia", ASME Conference IMECE 2007-42376.

McKay, B., D. Iamratanakul, K. Oh, J.-H. Chung, J. J. Riley, and S. Devasia. 2007. "Added-mass effect in modeling of cilia-based (vibrating cantilever-type) devices for microfluidic systems", ASME Conference IMECE 2007-42160.

Berrouk, A., A. Douce, D. Laurence, J. J. Riley, and D. E. Stock. 2006. "RANS and LES of particle dispersion in turbulent pipe flow: comparisons with experimental results", Proceedings of ASME/FED 2006.

2. Chapters of Books:

Riley, J. J., and E. Lindborg. 2013. "Recent progress in stratified turbulence", in *Ten Chapters in Turbulence*, P. A. Davidson, Y. Kaneda, and K. R. Sreenivasan, ed., Cambridge University Press.

Meneveau, C., and J. J. Riley. 2011. "Stanley Corrsin", in *A Voyage through Turbulence*, P. A. Davidson, Y. Kaneda, K. Moffat, and K. R. Sreenivasan, ed., Cambridge University Press.

Riley, J. J. 2007. "Intermediate-scale dynamics of the upper troposphere and stratosphere", in *Large-Scale Disasters: Prediction, Control, and Mitigation*, M. Gad-el-Hak, ed., Cambridge University Press.

de Bruyn Kops, S. M., J. J. Riley, and K. B. Winters. 2004. "Reynolds and Froude number scaling in stably-stratified flows", in *Reynolds Number Scaling in Turbulent Flow*, A. J. Smits (Ed.), Kluwer Academic Publishers.

Riley, J. J., and M.-P. Lelong. 2000. "Fluid Motions in the presence of strong stable stratification", *Ann. Rev. Fluid Mech.*, (invited article), Vol. 32, pp. 613-657.

Riley, J. J. 1999. "Turbulent Combustion Modeling", in *Transition, Turbulence and Combustion Modeling*, (invited article) A. Hanifi et al., eds., Kluwer Academic.

Cook, A. W., and J. J. Riley. 1998. "Progress in subgrid-scale combustion modeling", in *Computational Fluid Dynamics Review 1997*, (invited article) M. Hafez, ed., Wiley.

Riley, J. J. 1996. "Numerical simulation of variable-density, reacting flows", in *Computational Fluid Dynamics*, (invited article) M. Lesieur, P. Comte and J. Zinn-Justin, eds., Elsevier.

Métais, O., J. J. Riley, and M. Lesieur. 1993. "Numerical Simulations of Stably-Stratified, Rotating Turbulence", in *Stably-Stratified Flows: Flow & Dispersion over Topography*, I. P. Castro & N. J. Rockliff, eds., Oxford University Press, to appear; also in *Selected Papers from the Ninth Symposium on Turbulent Shear Flows*, Springer-Verlag.

Riley, J. J., M.-P. Lelong, and D. N. Slinn. 1991. "Organized structures in strongly stratified flows", in *Turbulence and Coherent Structures*, O. Métais and M. Lesieur, eds., Kluwer Academic Publishers.

Staquet, C., and J. J. Riley. 1989. "A Numerical Study of a Stably-Stratified Mixing Layer", in *Turbulent Shear Flows 6*, Springer-Verlag, pp. 381-397.

Riley, J. J., and P. A. McMurtry. 1989. "The Use of Direct Numerical Simulation in the Study of Turbulent, Chemically-Reacting Flows", in *Turbulent Reacting Flows, Vol. 2. Structure and Predictive Schemes*, (invited article) ed. by R. Borghi and S. N. B. Murthy, Springer-Verlag, pp. 486-514.

Riley, J. J., M. Gad-el-Hak, and R. W. Metcalfe. 1988. "Compliant Surfaces", *Ann. Rev. Fluid Mech.*, (invited article) Vol. 20, pp. 393-420.

Riley, J. J., and M. Gad-el-Hak. 1984. "Some Insights into Transitional and Turbulent Boundary Layers", invited paper for the Conference on Fundamentals in Fluid Mechanics, Northwestern University, June; in *Frontiers in Fluid Mechanics*, ed. by S. H. Davis and J. L. Lumley, Springer-Verlag, pp. 123-155.

Riley, J. J., R. W. Metcalfe, and M. A. Weissman. 1981. "Direct Numerical Simulations of Homogeneous Turbulence in Density-Stratified Fluids", presented at the Workshop on Nonlinear Properties of Internal Waves, January; in *Nonlinear Properties of Internal Waves*, AIP Conference Proceedings No. 76, ed. by B. J. West, pp. 79-112.

Weissman, M. A., R. W. Metcalfe, and J. J. Riley. 1981. "Nonlinear Internal Wave Interactions", presented at the Workshop on Nonlinear Properties of Internal Waves, January; in *Nonlinear Properties of Internal Waves*, AIP Conference Proceedings No. 76, ed. by B. J. West, pp. 253-266.

Riley, J. J., and R. W. Metcalfe. 1980. "Direct Numerical Simulations of the Turbulent Wake of an Axisymmetric Body", *Selected Papers from the 2nd Symposium on Turbulent Shear Flows*, Springer-Verlag, Berlin, pp. 78-93.

Riley, J. J., and R. W. Metcalfe. 1980. "Direct Numerical Simulations of a Perturbed, Turbulent Mixing Layer", AIAA-80-O274, presented at the 18th Aerospace Sciences Meeting, January, 30 pages.

6.5 Conference Presentations

B. C. Blakeley, J. J. Riley, D. W. Storti, and W. Wang. 2017. "On the kinematics of scalar iso-surfaces in turbulent flow", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

J. J. Riley and S. M. de Bruyn Kops. 2017. "The effect of stable stratification on initially homogeneous, isotropic turbulence", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

B. Perfect, J. J. Riley, J. Thomson, and E. Fay. 2015. "A study of water wave wakes of Washington State ferries", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

T. Watanabe, J. J. Riley, S. M. de Bruyn Kops, P. Diamessis, and Q. Zhou. 2015. "Characteristics of turbulent/non-turbulent interfaces in wakes in stably-stratified fluids", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

S. M. de Bruyn Kops, and J. J. Riley. 2014. "Initially isotropic turbulence subject to stabilizing stratification", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

S. Madhavan, S. Brunton, and J. J. Riley. 2014. "Lagrangian coherent structures and the dynamics of inertial particles", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

R. Keedy, J. J. Riley, and A. Aliseda. 2014. "Probability density function analysis of turbulent condensation using GPU hardware", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Keedy, R., J. J. Riley, and A. Aliseda. 2013. "The effect of viscosity gradients on the stability of the turbulent round jet", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Wang, W., J. J. Riley, and J. C. Kramlich. 2012. "On the kinematics of scalar iso-surfaces in a turbulent flow", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Riley, J. J., O. Flores, and A. R. Horner-Devine. 2012. "On the dynamics of homogeneous turbulence near a stress-free surface", International Conference on Theoretical and Applied Mechanics, August.

Riley, J. J. 2012. "On the kinematics of scalar iso-surfaces in a turbulent flow", Connections Between Regularized and Large-Eddy Simulation Methods in Turbulence, May.

Riley, J. J. 2011. "Some fluid dynamical issues in the siting of turbines for tidal energy", ASME-JSME-KSME Joint Fluids Engineering Conference, July.

Flores, O., and J. J. Riley. 2011. "On the dynamic of homogeneous turbulence near a stress-free surface", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Flores, O., J. J. Riley, N. Malaya, and R. Moser. 2010. "Stable stratification in turbulent Ekman layers", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

McGah, P., D. Leotta, K. Beach, J. J. Riley, and A. Aliseda. 2010. "Hemodynamic simulations in dialysis access fistulae", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Riley, J. J., V. Vasan, O. Flores and P.-K. Yeung. 2009. "On spectral energy transfer in strongly stratified flows", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Riley, J. J., and O. Flores. 2009. "Numerical simulations of stable atmospheric boundary layers", ARO Atmospheric Sciences Overview, January.

Schwarzkopf, J., C. Crowe, J. J. Riley, and P. Dutta. 2008. "Effect of particles on the dissipation of dissipation coefficient in the k-ϵ model", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Vasan, V., O. Grundestam, J. J. Riley, and P.-K. Yeung. 2008. "Direct numerical simulations of stratified turbulence at high Reynolds numbers", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Riley, J. J., and E. Lindborg. 2007. "Stratified turbulence: a possible interpretation of some geophysical turbulence measurements", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Wetchagarun, S., and J. J. Riley. 2007. "The behavior of the temperature of small inertial particles", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Oh, K., J.-H. Chung, S. Devasia, and J. J. Riley. 2007. "Fluid manipulation by bio-mimetic cilia", ASME Conference IMECE 2007-42376.

McKay, B., D. Iamratanakul, K. Oh, J.-H. Chung, J. J. Riley, and S. Devasia. 2007. "Added-mass effect in modeling of cillia-based (vibrating cantilever-type) devices for miicrofluidic systems", ASME Conference IMECE 2007-42160.

Oh, K., J.-H. Chung, S. Devasia, and J. J. Riley. 2007. COMSOL Workshop, University of Washington.

Wetchagarun, S., and J. J. Riley. 2006. "A numerical study of subgrid-scale effects on particle statistics in a particle-laden turbulent flow: *a priori* texting", Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, November.

Berrouk, A., A. Douce, D. Laurence, J. J. Riley, and D. E. Stock. 2006. "RANS and LES of particle dispersion in turbulent pipe flow: comparisons with experimental results", ASME 2006 Joint U.S.-European Fluids Engineering Summer Meeting, Miami, July.

Berrouk, A., D. Laurence, and D. E. Stock. 2006. "A validation study of RANS and large-eddy simulations of particle dispersion in turbulent pipe flow", Euromech Colloquium-477: Particle-laden flow, University of Twente, June.

Lindborg, E., and J. J. Riley. 2006. "The $k^{-5/3}$ energy spectrum in the open ocean: a new interpretation", European Geosciences Union, Vienna, April.

3. Miscellaneous

Adrian, R. J., C. Meneveau, R. D. Moser and J. J. Riley. 2000. "Final Report on 'Turbulence Measurements for LES' Workshop", available on the World Wide Web at: www.me.washington.edu/les.

Contributor to the CD-ROM entitled *Leonardo da Vinci*, published by Corbis, Inc., 1996

4. Additional

Numerous other papers in the proceedings of meetings, conferences, workshops and symposia; numerous industrial reports

Other Scholarly Activities

1. **Invited** Seminars

University of California, San Diego, April, 2018
University of Notre Dame, April, 2018
University of Toronto, April, 2017
Texas Tech University
President's Distinguished Lecture Series, October, 2015.
University of Houston, November, 2013

University of British Columbia, January, 2012
Okinawa Institute for Science and Technology, July, 2011.
National Center for Atmospheric Research, Boulder, June, 2010.
University of Texas, Austin, March, 2010.
Stanford University, March, 2010.
St. Andrews University, December, 2008.
Cambridge University, November, 2008.
Imperial College London, October, 2008.
Northwestern University, March, 2008.
University of Notre Dame, March, 2008.
Illinois Institute of Technology, March, 2008.
University of Illinois CU, March, 2008.
Purdue University, March, 2008.
Washington State University, November, 2007.
University of Michigan, September, 2007.
Michigan State University, September, 2007.
Iowa State University, September, 2007.
University of Wisconsin, September, 2007.
University of Minnesota, September, 2007.
Institut de Recherche sur les Phénomenes Hors Equilibre,
Marseille, France, July, 2007.
Institut de Mecanique des Fluides, Toulouse, France, July, 2006
Northwest Research Associates, Bellevue, Washington, September, 2005
University of Western Australia, Perth, Australia, June, 2004
Royal Melbourne Institute of Technology, Melbourne, Australia, June, 2004
Monash University, Melbourne, Australia, June, 2004
Curtin University of Technology, Perth Western Australia, May, 2004
University of Western Australia, Perth, Western Australia, April, 2004
California Institute of Technology, November, 2003
Technische Universität Berlin, June, 2003
Politecnico di Milano, May, 2003
Institut für Technische Mechanik, RWTH Aachen, May, 2003
Technische Universität München, April, 2003
University of Washington, Aeronautics & Astronautics, January, 2003
Arizona State University, April, 2001
University of California, San Diego, April, 2001
Stanford University, March, 2001
Lawrence Livermore National Laboratory, July, 1999
California Institute of Technology, January, 1999
Stanford University, July, 1998
Lawrence Livermore National Laboratory, July, 1998 (2 seminars)
Battelle PNNL, August, 1997
University of Washington, Civil Engineering, January, 1997
Johns Hopkins University, May, 1996

University of Maryland, May, 1996
University of California, Irvine, April, 1996
University of California, San Diego, April, 1996
Midwest Lecture Tour: Notre Dame U., Illinois Institute of Technology, U. Illinois, Champagne-Urbana, Purdue U., March, 1996
Midwest Lecture Tour: U. Michigan, Michigan St. U., Northwestern U., U. Minnesota, October, 1995
University of Southern California, March, 1995
University of Western Australia, Perth, September, 1994
University of Sydney, Australia, September, 1994
California Institute of Technology, January, 1992
University of Southern California, January, 1992
Los Alamos National Laboratory, November, 1991
Lawrence Livermore National Laboratory, May, 1991
Universidad de Zaragoza, Spain, September, 1990
Centre National de Recherches Meteorologiques, Toulouse, France, August, 1990
École Centrale de Lyon, France, July, 1990
Politecnico di Torino, Italy, June, 1990 (2 seminars)
Institut de Mécanique de Grenoble, France, May, 1990
University of Houston, February, 1990
Boeing Commercial Airplane Company, October, 1989
Arizona State University, September, 1989
University of Arizona, August, 1989
Northwest Research Associates, January, 1989
Stanford University Series on Turbulence in the Environment, February, 1988
Battelle PNNL, December, 1987
Arizona State University, October, 1987

2. **Invited** Presentations at Meetings/Workshops

Fundamental Aspects of Geophysical Turbulence
Nagoya, Japan, March, 2018
International Symposium on Stratified Flows
San Diego, August, 2016
Keynote Speaker, Canadian Society of Mechanical Engineering
Annual Meeting, July, 2016
Stratified Turbulence in the 21st Century
The Royal Society
The Royal Society at Chicheley Hall, UK, March, 2016
Waves and Turbulence in Rotating,
Stratified and Electrically-Conducting Fluids
Oxford, UK, September, 2015

Fundamental Aspects of Geophysical Turbulence
National Center for Atmospheric Research
Boulder, CO, August, 2015
International Centre for Mechanical Sciences
Mixing and Dispersion in Flows Dominated by
Rotation and Buoyancy
Series of Lectures
Udine, Italy, July, 2015
Keynote Speaker, Euromech Colloquium 567
Turbulent Mixing in Stratified Flows
Cambridge University, Cambridge, UK, March, 2015
Waves and Turbulence in Geophysics
Cambridge University, Cambridge, UK, July, 2014
Fundamental Aspects of Geophysical Turbulence
Nagoya, Japan, March, 2014
Los Alamos Ocean Turbulence Conference
Sante Fe, NM, June, 2013.
International Conference on Theoretical and Applied Mechanics
Beijing, China, August, 2012
European Turbulence Conference
Warsaw, Poland, September, 2011
Plenary Speaker, ASME-JSME-KSME
Joint Fluids Engineering Conference
Hamamatsu, Japan, July, 2011
Plenary speaker, Annual Meeting of the Division of
Fluid Dynamics of the American Physical Society,
November, 2010.
Keynote speaker, NCAR Geophysical Turbulence Workshop,
National Center for Atmospheric Research
Boulder, CO, August, 2010
Euromech Colloquium on Small-Scale Turbulence,
Turin, Italy, October, 2009.
Could not attend, health-related issue.
International Symposium on Turbulence,
Beijing, November, 2009.
Could not attend, health-related issue.
Plenary Speaker, 12th European Turbulence Conference,
Marberg, Germany, September, 2009.
Could not attend, health-related issue.
Workshop on Inertial Range Dynamics and Mixing,
Cambridge, UK, September, 2008.
IUTAM Workshop: Rotating Stratified Turbulence and
Turbulence in the Atmosphere and Oceans,
Cambridge, UK, December, 2008.

Keynote speaker, Density Effects in Fluid Dynamics Workshop,
Los Alamos National Laboratory, December, 2007
Institute for Mathematical Sciences Turbulence Workshop,
Imperial College London, March, 2007
Keynote speaker, Sedona International Workshop on Stable
Atmospheric Boundary Layers, November, 2006
Spontaneous Imbalance Workshop, Seattle, August, 2006
Keynote speaker, Geophysical Turbulence Workshop,
National Center for Atmospheric Research,
Boulder, July, 2005
LES/SGS Workshop, California Institute of Technology, November, 2003
31st AIAA Fluid Dynamics Conference, June, 2001
IUTAM 2001, invited session chair and discussion moderator, June
ASME Fluids Engineering Summer Meeting, Symposium on the
Role of Industry in Developing Fluid Power Generating Systems,
May, 2001
European Geophysical Society, April, 2000, Nice, France
NSF Workshop on Turbulence Measurements for LES, October, 1999
Second AFOSR Conference on DNS and LES, June, 1999, Rutgers
Workshop on the Role of DNS in Turbulence Research, March, 1999,
University of California, Santa Barbara
Mexican Physical Society, Annual Meeting, October, 1998
Sandia National Laboratory, June, 1998,
DOE Scientific Simulation Initiative Workshop
European Summer School on Turbulence, June, 1998, Stockholm
(series of lectures)
Lawrence Livermore National Laboratory, June, 1997,
Workshop on Turbulent Transport and Numerical Modeling
Sandia National Laboratory, Combustion Modeling Workshop,
September, 1997
Los Alamos National Laboratory, June, 1997,
Workshop on Turbulence and Transport Modeling
Workshop on Computing the Future II, June, 1997
National Center for Atmospheric Research, August, 1996,
Workshop on Stratified and Rotating Turbulence
American Water Resource Association, November, 1996,
Annual Meeting
American Physical Society, November, 1995
48th Meeting of the Division of Fluid Dynamics
Los Alamos National Laboratory, May, 1995
Nonlinear Phenomena in Ocean Dynamics
EUROMECH 339, Internal Waves, Turbulence and Mixing
in Stratified Fluids, Lyon, France, September, 1995

EUROMECH Course on Computational Fluid Mechanics, Les Houches, France, June, 1993 (series of lectures)
Thirteenth Symposium on Turbulence
University of Missouri, Rolla, September 1992
Los Alamos National Laboratory, Reactive Turbulence Workshop, Center for Nonlinear Studies (2 papers), August, 1992
University of Hawaii Workshop on the Dynamics of Oceanic Internal Gravity Waves, January, 1991
NASA Langley Research Center/ICASE Combustion Workshop, October, 1989
American Meteorology Society, April, 1989
Seventh Conference on Atmospheric and Oceanic Waves and Stability
American Physical Society, November, 1998
41st Meeting of the Division of Fluid Dynamics
Brown University/Yale University Free Shear Flows Conference, June, 1988
United States-France Joint Workshop on Turbulent Reacting Flows, Rouen, France, July, 1987
Symposium on Prospects of Turbulence Research, the National Center for Atmospheric Research, June, 1987
American Institute of Aeronautics and Astronautics
Fluid Dynamics and Plasma Dynamics Meeting, June, 1987
Second International Symposium on Stratified Flows, Caltech, January, 1987
American Meteorology Society, November, 1985
Seventh Symposium on Turbulence and Diffusion
Société Francaise de Physique Congres National, Nice, September, 1985
International Workshop: Puzzles in Free Shear Layers, Brown University, November, 1984
Conference on Fundamentals in Fluid Mechanics, Northwestern University, June, 1984

3. Additional

Numerous other presentations at meetings, conferences, workshops and symposia

4. Professional Society Memberships

American Physical Society
American Society of Mechanical Engineers
American Institute of Aeronautics and Astronautics
American Meteorological Society
American Association for the Advancement of Science

Recent Service

Mechanical Engineering:

Member, Faculty Affairs Committee; Chair AY2004/5,
AY2005/6, AY2006/7, AY2009/10, AY2010/11,
AY2011/12, AY2012/13, AY2013/14
AY2014/15,AY2015/16,AY2016/17
Chair, Faculty Search Committee, 2013/2014
Chair, Faculty Search Committee, 2006
Member, Faculty Search Committee, 2011

College of Engineering

Member, Associate Dean Search Committee, 2005
Member, Council on Promotion & Tenure, 2007/8, 2016/17
Member, CoE Graduate Fellowship Selection Committee,
2012, 2013
Member, CoE Endowment Committee, 2014

University of Washington

Chair, Advisory Committee for Atmospheric Sciences
10-year Program Review
Member, Advisory Review Committee for the Director of the
Applied Physics Laboratory

American Physical Society

Chair Elect, Vice-Chair, Chair, Division of Fluid Dynamics
2011, 2012, 2013
Chair, Fluid Dynamics Program Committee, 2012
Chair, Fellowship Committee, 2012

Highline Community College

Member, Engineering Advisory Council
Member, Board of Directors, Highline Community College Foundation

5. Professional Society and Other Service

American Physical Society

Chair, Annual Meeting of the Division of Fluid Dynamics, 2004
Chair, Division of Fluid Dynamics, 1997
Past Chair, Chair elect, Vice-Chair, Division of Fluid Dynamics,
1995-1998
Secretary/Treasurer, Division of Fluid Dynamics, 1992-1995
Co-organizer for the Workshop on Turbulence Measurements for LES,
sponsored by the NSF, AFOSR, DARPA, DOE, October, 1999
Co-organizer for the Workshop on the Role of DNS in Turbulence
Research, sponsored by the NSF and the Institute of Theoretical
Physics, University of California, Santa Barbara, March, 1999
Associate Editor, *Journal of Fluid Mechanics*

Editorial Committee, *Annual Review of Fluid Mechanics*
Associate Editor, *Journal of Turbulence*
Associate Editor, *Applied Mechanics Reviews*
Associate Editor, 2006 issue of *Annual Review of Fluid Mechanics*
American Institute of Physics
Advisory Committee for Selection of Editor of the *Physics of Fluids*, 1998
National Science Foundation
Chair, National Visiting Committee, Fluid Mechanics Multi-Media Project, 1998-2001
National Science Foundation, Workshop on Supercomputer Usage,
Chairman of the Fluid Mechanics Committee, December, 1983
American Meteorological Society
Member, Committee on Boundary Layers and Turbulence (twice)
Chair, Committee on Boundary Layers and Turbulence, 1987-1988
Chair, Symposium on Turbulence and Diffusion, 1988

8.0 Recent Graduate Students

Completed Ph.D.:	Weirong Wang (with John Kramlich) Kristen Thyng Joseph Nichols Gerald Pagel (with Per Reinhall) Saensuk Wetchagarun
Completed M.S.M.E.:	Patrick McGah Verene Martin
Current Ph.D. Committee Chair:	Bradley Perfect
Pre-Ph.D. Committee Chair:	Brandon Blakeley
Visiting Ph.D. Student, Tsing-Hua U.:	Ruonan Bai

8.1 Other Graduate Student Activities

Currently on Ph.D. advisory committees of about 15 students

In past 3 years served on the Ph.D. advisory committee of about 8 students who completed their degree programs

Served on the Ph.D. advisory committee of 1 student at the University of Toronto

Served on the Ph.D. advisory committee (*jury*) of 1 student at the Institut de Mécanique, Grenoble, France

Served on the Ph.D. advisory committee (*jury*) of 1 student at the Ecole Polytechnique, Paris, France

Served on the *Habilitation* (post Ph.D.) committee (*jury*) of 1 researcher at the École Centrale de Lyon, Ecully, France

Advisor for visiting graduate student from the Technical Institute of Turin, Italy, March to June, 2005

Advisor for Worldwide University Network (WUN) Exchange graduate student from the University of Manchester, UK, October, 2005 to May, 2006

Advisor for visiting graduate student from the Technical Institute of Turin, Italy, May to July, 2007

Advisor for visiting graduate student from the Technical Institute of Turin, Italy, April to July, 2010

Advisor for visiting graduate student from the Technical Institute of Turin, Italy, April to July, 2013

8.2 Recent Research Associates (Post-Doctoral Fellows)

Tomoaki Watanabe, Nagoya University

Olof Grundestam, KTH Stockholm

Oscar Flores, Universidad Politecnica de Madrid

Ammar Abdilghanie, Cornell University

Graduate Student Supervision

· Chair of Ph.D. advisory committees for 20 students who have completed their degrees

· Chair of M.S.M.E. advisory committees for 18 students who have completed their degrees

· Has been a member of the Ph.D. advisory committees for about 85 students, 70 of whom have completed their degrees. These committees involved students from Mechanical, Civil, and Chemical Engineering, Aeronautics & Astronautics, Materials Science & Engineering, Physics, Mathematics, Applied Mathematics, Astronomy, Oceanography, and Atmospheric Sciences. Eight were at French universities (in Grenoble, Lyon, Paris and Toulouse), one at an Austrialian university (in Perth), one at a Swedish University (KTH), and one at a Canadian University (in Toronto).

· Has been the advisor to four graduate student visitors from foreign countries

Post-Doctoral Fellow Supervision

· Has been the supervisor of seven post-doctoral fellows

Other Educational Activities

Professor Riley was involved in the initiation and the NSF oversight of *Multimedia Fluid Mechanics I*, published by Cambridge University Press, a popular DVD-based product for undergraduate education which has been translated into several languages, has

received outstanding reviews, and is being used in many universities with great success. He is a coauthor of the second edition, *Multimedia Fluid Mechanics II*, which has recently become available. This edition is now being bundled in most undergraduate texts books on fluid mechanics.

Professor Riley was a co-PI with, among several others, Daniel J. Gallagher, the Science Program Manager for Seattle Public Schools, on the proposal to the Washington State Board of Education entitled "Partnership for Science and Engineering Practices". The proposal was a partnership between Seattle Public Schools, the Renton School District, the University of Washington, and the Institute for Systems Biology. The purpose of the proposed work was to help the school systems respond to new developments in STEM teaching spelled out in the report of the National Research Council entitled the "Next Generation Science Standards". The proposal was successful and, in the first year of the project, Professor Riley helped organize and participated in a summer workshop for teachers in the Seattle and Renton school districts.