Brian Andrew Fleck Ph.D., P.Eng., ICD.D
Curriculum Vitae provided for AASUA Council.
brian.fleck@ualberta.ca, brianandrewf@protonmail.com

Education

- **University of Toronto** Toronto, Canada
  ICD.D Rotman School of Management *2019*
  – Director's Education Program
- **Queen's University** Kingston, Canada
  Ph.D. in Mechanical Engineering *1993 - 1998*
  – British Gas Scholar
  – *Thesis:* Experimental and Numerical Investigation of the Novel Low NOx CGRI Burner
- **Université Laval** Quebec City, Canada
  M.Sc. in Mechanical Engineering *1992 - 1993*
  – *Thesis:* Spectral Simulation of Centrifugal Thermal Convection
- **Von Kármán Institute For Fluid Dynamics** Brussels, Belgium
  Postgraduate Diploma *1989 - 1990*
  – Applied and Environmental Fluid Dynamics
  – *Thesis:* Water Spray Interaction using Phase Doppler Particle Anemometry
- **University of Alberta** Edmonton, Alberta
  B.Sc. in Mechanical Engineering *1984 - 1989*

Vision Statement

I intend to continue to serve the AASUA in the same constructive, collaborative and energetic way I have since I began this service in 2019. I strongly believe that the future success of the University of Alberta and post-secondary education in general relies on excellent working conditions for the academic staff. Throughout my career, my relationships, leadership, mentoring, community work and research include an effort and philosophy of **continuous improvement** *toward equitable practices, communication and mentoring. In substantive terms, I have employed hiring practices, communication, training and engagement, advocacy and team leadership that respect equitable practices, and develop and improve such practices.*

Appointments and Employment

- **Full Professor** — University of Alberta
  Department of Mechanical Engineering — *2011 - present (hired 2000)*
- **Department Chair** — University of Alberta
  Department of Mechanical Engineering (50 professors, $9M/year budget) — *2012 - 2017*
- **Provost Fellow** — University of Alberta
  Office of The Vice President Academic — *2012*
- **Associate Chair Graduate Studies** — University of Alberta
  Department of Mechanical Engineering — *2010*
- **Visiting Professor** — Tecnológico de Monterrey, Guadalajara, Mexico
  Department of Mechatronics — *01/2010-06/2010*
- **Associate Professor** — University of Alberta
  Department of Mechanical Engineering — *2005-2011*
- **On-Camera Host** — Canadian Broadcasting Corporation
  The Nature of Things episode: Supercar — *2008*
- **On-Camera Host** — Canadian Broadcasting Corporation
  8 episodes: Project X — *2007*
- **Visiting Professor** — ENSICA, Toulouse, France
  Fluid Dynamics Lab — *July 2005 - June 2006*
- **Assistant Professor** — University of Alberta
  Department of Mechanical Engineering — *2000-2005*
- **Assistant Professor** — Royal Military College of Canada
  Department of Mechanical Engineering — *1998-2000*
- **Research Engineer** — British Gas plc. Loughborough, U.K.
  Gas Research Centre — *1996*
- **Project Engineer** — Concord Environmental, Calgary, Canada
  Risk and Hazard Modelling — *1990-1991*
- **Research Engineer** — Energy Resource Conservation Board, Calgary, Canada
  Environmental Protection Department — *1989*

Awards and other service

Negotiator. Faculty representative on Union Negotiation team AASUA 2023-present
Co-Author "Reducing the Risk of Virus Transmission via HVAC Systems in Schools" HRAI 2021
Academic Editor - MDPI Energies 2020
NSERC Scholarships and Fellowships Committee (Mechanical) 2018-2020
Award of Outstanding Service, Scholar Rescue Fund, United Nations. 2015-2017
Wighton Fellowship, Stanford Fleming Foundation. 2003
British Gas Scholarship, Queen's University 1993-1997
Graduate Student Support Scholarship, Université Laval 1991-1992
First Class Honours, University of Alberta 1986

Boards and Directorships

- **Co-Chair** — Building Owners Management Association - Toronto
  HVAC Advisory Council on COVID19 — *2020-2022*
- **Member** — HRAI
  Council on Creating Healthy, Sustainable Indoor Environments — *2020-2022*
- **Advisor** — Pura-Air Inc
  Scientific Advisory Board — *2020-2022*
- **Academic Faculty Director** — AASUA - Largest Post-secondary Union in Canada
  Executive — *2019-2022*
- **Vice President Northern Constituencies** — Alberta NDP
  Provincial Party Executive — *2021-2022*
- **Director (Government Board)** — Alberta Energy Regulator (**$35 billion/year sector)**
  Chair of Risk and IT subcommittees — *2017-2019*
- **Director** — Engineering Beyond, Edmonton, Canada
  Founder — *2015-2019*
- **Co-Director** — UASolve - Student Entrepreneurial Incubator, Edmonton, Canada
  Founder — *2013-2016*
- **Member** — Engineering Coordinating Committee
  Faculty of Engineering — *2012-2017*
- **Director** — University of Alberta Water Initiative
  Office of Vice President, Research — *2011*

Short Courses

Leading for Equity, Diversity and Inclusion in Higher Education(University of Michigan) . . 2022
Indigenous Canada (University of Alberta) 2021
Unconcious Bias Training (NRC) 2019
Fundraising for Deans (Academic Impressions) 2016

Funding (Canadian Dollars)

Summary: 1.9M$ as sole or principal investigator, 1.5M$ as named co-investigator and 2.7M$ as supervising applicant or general manager (as Department Chair).

- **University of Alberta Urban Wind Modelling** — Sole Funding Holder $180000
  Facilities and Operations — *2024-2027*
- **Bioinspired technologies for enhancing wind farm performance** — $257000
  NSERC Alliance — *2023-2025*
- **Experiments in complex fluids for industrial flow systems** — Sole Funding Holder $195000
  Natural Sciences and Engineering Research Council of Canada — *2020-2025*
- **Optimization of Small Wind Turbines for Gusty Condition** — $600000
  Canada First Research Excellence Fund — *2018-2023*

- **Wind Energy in Remote Microgrids** — Principal Investigator $540000
  Canada First Research Excellence Fund — *2018-2023*
- **Effect of Building Ventilation on SARS-CoV2 transmission** — $440000
  Canadian Institutes for Health Research — *2020-2022*
- **Experiments & Simulation to provide urban wind patterns** — Sole Funding Holder $130000
  University of Alberta Facilities — *2019-2021*
- **Installation of novel patented UV filtering glass coating** — Sole Funding Holder $50000
  University of Alberta Facilities — *2019-2020*
- **Development of Next Generation low-E Nanotech glass coatings** — $95000
  Climate Change Innovation and Technology Framework — *2019-2020*
- **Design of a Renewable Electric Vehicle Network** — Sole Funding Holder $25000
  Natural Sciences and Engineering Research Council of Canada — *2019-2020*
- **Innovating Multiphase Flows for Engineering Applications** — Sole Funding Holder $145000
  Natural Sciences and Engineering Research Council of Canada — *2015-2020*
- **Wind Resource Assessment for UAlberta Campus** — Principal Investigator $75000
  UAlberta Sustainability Fund — *2017-2019*
- **NSERC AITF IRC on Intelligent Integrated Sensors and Antennas** — Supervisor $925000
  Natural Sciences and Engineering Research Council of Canada — *2013-2018*
- **Development of a predictive, laboratory-based tool for slurry pipeline wear** — $295532
  Esso + Natural Sciences and Engineering Research Council of Canada — *2014-2017*
- **Department Chair Research Fund** — $175000
  Faculty of Engineering, UAlberta — *2012-2017*
- **Fabrications of superhydrophobic surfaces** — Principal Investigator $90630
  Nanching Hangkong University — *2014-2015*
- **Optical Flow Measurement and Analysis** — Grant Holder $63000
  Absolute Combustion (contract) — *2015*
- **PIV measurements in a low NOx burner** — Principal Investigator $43000
  Absolute Combustion (contract) — *2014-2015*
- **Water Quality Management for Oil Sands Extraction** — Grant Holder $615000
  Canada's Oil Sands Innovation Alliance (contract) — *2014-2015*
- **Applied Laboratory Studies of Jets and Sprays** — $135000
  Natural Sciences and Engineering Research Council of Canada — *2010-2015*
- **Oil Sands and Coal Interfacial Engineering Facility** — Grant Holder $74000
  Canada Foundation for Innovation — *2013-2014*
- **Analysis of Dissolved Organic Matter in SAGD Produced Water** — Grant Holder $143956
  Statoil Hydro Canada Ltd.(contract) — *2013-2015*
- **Research Chair in Water Quality for Oil Sands Extraction** — Supervisor $892000
  Natural Sciences and Engineering Research Council of Canada — *2013-2014*
- **Emissions from flares with non-hydrocarbon liquids in the flare stream** — $85000
  Petroleum Technology Alliance of Canada — *2012*
- **Improving and controlling atomization in industrial effervescent nozzles** — $271000
  Syncrude + Natural Sciences and Engineering Research Council of Canada — *2009-2012*

Publications and Peer Reviewed Presented Works

RahnamayBahambary, Khashayar, Mohammad Reza Kavian-Nezhad, Alexandra Komrakova, and Brian A Fleck (2024). "A numerical study of bio-inspired wingtip modifications of modern wind turbines". In: *Energy*, p. 130561.

Durán-Castillo, Gloria E, Timothy Weis, Andrew Leach, and Brian A Fleck (2023). "Revenue-optimized photovoltaic orientation in a northern competitive electricity market with carbon offsets". In: *Energy Reports* 10, pp. 3133–3145.

Hartling, L, L Bialy, D Dandnayak, B Fleck, COVID-END PHSM LES Working Group, et al. (2023). "COVID-19 Living Evidence Synthesis 15.1: Effectiveness of ventilation for reducing transmission of COVID-19 and other respiratory infections in non-health care community-based settings". In: McMaster Health Forum.

Hartling, Lisa, Liza Bialy, Dhyey Dandnayak, Brian Fleck, Marion Knutson, COVID-END PHSM LES Working Group, et al. (2023). "Do ventilation, filtration, or portable air cleaners help control the spread of COVID-19?" In: McMaster Health Forum.

Kavian Nezhad, Mohammad Reza, Khashayar RahnamayBahambary, Carlos F Lange, and Brian A Fleck (2023). "Modified Accuracy of RANS Modeling of Urban Pollutant Flow within Generic Building Clusters Using a High-Quality Full-Scale Dispersion Dataset". In: *Sustainability* 15.19, p. 14317.

Nezhad, Mohammad R. Kavian, Carlos F. Lange, and Brian A. Fleck (2023). "Evaluating the Validity of Computational Fluid Dynamics Model of Dispersion in a Complex Urban Geometry Using Two Sets of Experimental Measurements". In: *International Journal of Mechanical and Mechatronics Engineering* 17.3, pp. 78–86. ISSN: eISSN: 1307-6892.

Thornton, Gail M, Brian A Fleck, Emily Kroeker, Dhyey Dandnayak, Natalie Fleck, Lexuan Zhong, and Lisa Hartling (2023). "The impact of heating, ventilation, and air conditioning design features on the transmission of viruses, including the 2019 novel coronavirus: A systematic review of filtration". In: *PLOS Global Public Health* 3.9, e0002389.

Kavian Nezhad, Mohammad Reza, Carlos F Lange, and Brian A Fleck (2022). "Performance Evaluation of the RANS Models in Predicting the Pollutant Concentration Field within a Compact Urban Setting: Effects of the Source Location and Turbulent Schmidt Number". In: *Atmosphere* 13.7, p. 1013.

Noel, William, Timothy M Weis, Qiulin Yu, Andrew Leach, and Brian A Fleck (2022). "Mapping the evolution of Canada's wind energy fleet". In: *Renewable and Sustainable Energy Reviews* 167, p. 112690.

RahnamayBahambary, Khashayar and Brian A Fleck (2022). "Effects of Inflow Parameters and Disk Thickness on an Actuator Disk inside the Neutral Atmospheric Boundary Layer". In: *Wind* 2.4, pp. 733–746.

Suresh, Kavya, Muhammad Amirul Islam, Masoud Rastgar, Brian A Fleck, and Mohtada Sadrzadeh (Apr. 2022). "Poly (Methyl Methacrylate) Grafted Wheat Straw for Economical and Eco-friendly Treatment of Oily Wastewater." In: *Cellulose* 29.6.

Thornton, G, B Fleck, D Dandnayak, E Kroeker, L Zhong, and L Hartling (2022). "The impact of heating, ventilation and air conditioning (HVAC) design features on the transmission of viruses, including the 2019 novel coronavirus (COVID-19): A systematic review of humidity". In: *Plos one* 17.10. DOI: https://doi.org/10.1371/journal.pone.0275654.

Thornton, Gail M, Brian A Fleck, Emily Kroeker, Dhyey Dandnayak, Natalie Fleck, Lexuan Zhong, and Lisa A Hartling (Apr. 2022a). "The impact of heating, ventilation, and air conditioning design features on the transmission of viruses, including the 2019 novel coronavirus: a systematic review of ultraviolet radiation". In: *PLOS One*. DOI: https://doi.org/10.1371/journal.pone.0266487.

– (July 2022b). "The impact of heating, ventilation, and air conditioning design features on the transmission of viruses, including the 2019 novel coronavirus: a systematic review of ventilation and

coronavirus". In: *PLOS Global Public Health* 2.7, pp. 1–25. DOI: https://doi.org/10.1371/journal.pgph.0000552.

Thornton, GM, E Kroeker, BA Fleck, L Zhong, and L Hartling (2022). "The impact of heating, ventilation and air conditioning (HVAC) design features on the transmission of viruses, including SARS-CoV-2: an overview of reviews." In: *Interactive Journal of Medical Research*.

Jituri, Saraswati, Ravneet Kaur, Dimitris Mourtzis, Brian Fleck, and Rafiq Ahmad (2021). "A decision support system to define, evaluate and guide the lean assessment and implementation at the shop-floor level". In: *International Journal of Manufacturing Research* 16.4, pp. 325–349.

Mattar, Sarah Jamal, Mohammad Reza Kavian Nezhad, Michael Versteege, Carlos F Lange, and Brian A Fleck (2021). "Validation Process for Rooftop Wind Regime CFD Model in Complex Urban Environment Using an Experimental Measurement Campaign". In: *Energies* 14.9, p. 2497.

Rojas, Jose Guadalupe Mercado, Morteza Ghasri-Khouzani, Tonya Wolfe, Brian Fleck, Hani Henein, and Ahmed Jawad Qureshi (2021). "Preliminary geometrical and microstructural characterization of WC-reinforced NiCrBSi matrix composites fabricated by plasma transferred arc additive manufacturing through Taguchi-based experimentation". In: *The International Journal of Advanced Manufacturing Technology* 113.5, pp. 1451–1468.

Udovichenko, Artur, Brian A Fleck, Tim Weis, and Lexuan Zhong (2021). "Framework for design and optimization of a retrofitted light industrial space with a renewable energy-assisted hydroponics facility in a rural northern canadian community". In: *Journal of Building Engineering* 37, p. 102160.

Udovichenko, Artur, Brian Fleck, Tim Weis, and Lexuan Zhong (2021). "Retrofitting a Light Industrial Space with a Renewable Energy-Assisted Hydroponics Facility in a Rural Northern Canadian Community: Design Protocol." In: *ASHRAE Transactions* 127.1.

Jiang, C, BA Fleck, and MG Lipsett (2020). "Rapid Wear Modelling in a Slurry Pump Using Soft 3D Impeller Material". In: *Energies* 13.12, p. 3264.

Sarker, NR, DES Breakey, MA Islam, S Sun, BA Fleck, and RS Sanders (2020). "Performance and hydrodynamics analysis of a Toroid Wear Tester to predict erosion in slurry pipelines". In: *Wear*, p. 203068.

Aguilera, Alejandro F Eufracio, Balakrishnan Nagarajan, Brian A Fleck, and Ahmed Jawad Qureshi (2019). "Ferromagnetic particle structuring in material jetting-Manufacturing control system and software development". In: *Procedia Manufacturing* 34, pp. 545–551.

Balzan, Miguel A, Franz Hernandez, Carlos F Lange, and Brian A Fleck (2019). "Parametric Study of the Frequency of Bubble Formation at a Single Orifice With Liquid Cross-Flow". In: *Journal of Fluids Engineering* 141.9.

Fogaing, M.B. Tadie, H. Gordon, C.F. Lange, D. H. Wood, and B.A. Fleck (2019). "A Review of Wind Energy Resource Assessment in the Urban Environment". In: *Advances in Sustainable Energy, Lecture Notes In Energy*. Vol. 70. Springer Cham, pp. 7–36.

Fogaing, Mireille B Tadie, Arman Hemmati, Carlos F Lange, and Brian A Fleck (2019). "Performance of Turbulence Models in Simulating Wind Loads on Photovoltaics Modules". In: *Energies* 12.17, p. 3290.

Rojas, JG Mercado, E Tamayo, T Wolfe, B Fleck, and Ahmed Jawad Qureshi (2019). "Design modeling for additive manufacturing in the case study of a systematic methodology applied to plasma transferred arc additive manufacturing". In: *Procedia CIRP* 84, pp. 283–289.

Zhong, Lexuan, Jing Yuan, and Brian Fleck (2019). "Indoor Environmental Quality Evaluation of Lecture Classrooms in an Institutional Building in a Cold Climate". In: *Sustainability* 11.23, p. 6591.

Ahmed, Abrar, Brian A Fleck, and Prashant R Waghmare (2018). "Maximum spreading of a ferrofluid droplet under the effect of magnetic field". In: *Physics of Fluids* 30.7, p. 077102.

Ahmed, Abrar, Ahmed Jawad Qureshi, Brian A Fleck, and Prashant R Waghmare (2018). "Effects of magnetic field on the spreading dynamics of an impinging ferrofluid droplet". In: *Journal of colloid and interface science* 532, pp. 309–320.

Jituri, Saraswati, Brian Fleck, and Rafiq Ahmad (2018). "Lean OR ERP–A Decision Support System to Satisfy Business Objectives". In: *Procedia CIRP* 70, pp. 422–427.

Prybysh, Robert, Brian Fleck, Mohamed Al-Hussein, and Sabrina Flemming (2018). "Experimental study of the performance of residential buildings utilizing potable water as a hydronic medium". In: *Journal of Building Engineering* 16, pp. 220–227.

Rojas, JG Mercado, T Wolfe, BA Fleck, and Ahmed Jawad Qureshi (2018). "Plasma transferred arc additive manufacturing of Nickel metal matrix composites". In: *Manufacturing letters* 18, pp. 31–34.

Saraswati Jituri, Brian Fleck and Rafiq Ahmad (2018). "A Methodology to Satisfy Key Performance Indicators for Successful ERP Implementation in Small and Medium Enterprises". In: *International Journal of Innovation, Management and Technology* 9.2, pp. 79–84.

Balzán, Miguel A, R Sean Sanders, and Brian A Fleck (2017). "Bubble formation regimes during gas injection into a liquid cross flow in a conduit". In: *The Canadian Journal of Chemical Engineering* 95.2, pp. 372–385.

Bhambri, Pallavi, Ravin Narain, and Brian Fleck (2017). "Drag Reduction Using Polysaccharides in a Taylor–Couette Flow". In: *Polymers* 9.12, p. 683.

Mahmoudi, Mohammad and Brian A Fleck (2017). "Experimental measurement of the velocity field of round wall jet in counterflow". In: *Journal of Hydraulic Engineering* 143.1, p. 04016076.

Sarker, NR, L Zhang, DES Breakey, BA Fleck, and RS Sanders (Sept. 2017). "Laboratory-Scale Erosive Wear Measurements Conducted with a Toroid Wear Tester (TWT)". In: *18th International Conference on Transport, Prague, Czech Republic*, p. 295.

Bai, Guanghan, Brian Fleck, and Ming J Zuo (2016). "A stochastic power curve for wind turbines with reduced variability using conditional copula". In: *Wind Energy* 19.8, pp. 1519–1534.

Bhambri, Pallavi and Brian Fleck (2016). "Drag Reduction using high molecular weight polymers in Taylor-Couette Flow". In: *Int. J. Mech. Prod. Eng. Res. Dev, 6, 59* 72.

Bhambri, Pallavi, Ravin Narain, and Brian A Fleck (2016). "Thermo-responsive polymers for drag reduction in turbulent Taylor–Couette flow". In: *Journal of Applied Polymer Science* 133.46.

Bhambri, Pallavi, Debjyoti Sen, Yuvraj Singh Negi, and Brian Fleck (2016). "Effect of drag reducing agent on bubble formation in horizontal liquid cross-flow". In: *Journal of Visualization* 19.2, pp. 225–235.

Bhinder, Amrit, Brian A Fleck, David Pernitsky, and Mohtada Sadrzadeh (2016). "Forward osmosis for treatment of oil sands produced water: systematic study of influential parameters". In: *Desalination and Water Treatment* 57.48-49, pp. 22980–22993.

Khorshidi, Behnam, Thomas Thundat, Brian A Fleck, and Mohtada Sadrzadeh (2016). "A novel approach toward fabrication of high performance thin film composite polyamide membranes". In: *Scientific reports* 6, p. 22069.

Erfan, Iman, Iman Chitsaz, Masoud Ziabasharhagh, Alireza Hajialimohammadi, and Brian Fleck (2015). "Injection characteristics of gaseous jet injected by a single-hole nozzle direct injector". In: *Fuel* 160, pp. 24–34.

Khorshidi, B, T Thundat, BA Fleck, and M Sadrzadeh (2015). "Thin film composite polyamide membranes: parametric study on the influence of synthesis conditions". In: *RSC Advances* 5.68, pp. 54985–54997.

Sarker, NR, MA Islam, RS Sanders, and BA Fleck (2015). "CFD Analysis of the Hydrodynamics of an Air-Water Multiphase System in a Rotating Toroid Wheel". In: *23rd Annual Conference of the Computational Fluid Dynamics Society of Canada.*

Balzan, Miguel A and Brian A Fleck (2014). "Gas-Phase Probability Distribution in Liquid Cross-Flow". In: *Multiphase Science and Technology* 26.3.

Hong, Moongeun, Brian A Fleck, and David S Nobes (2014). "Unsteadiness of the internal flow in an effervescent atomizer nozzle". In: *Experiments in fluids* 55.12, p. 1855.

Mahmoudi, Mohammad, David Nobes, and Brian Fleck (2014). "An experiment design for measuring the velocity field of a round wall jet in counter-flow". In: *International Journal of Mechanical Engineering and Mechatronics* 2.1, pp. 23–32.

Rahman, Aziz, Al Amin, Alamgir Hossain, and Brian Fleck (2014). "Numerical investigation of two-phase nozzle flow". In: *Procedia Engineering* 90, pp. 346–350.

Sen, Debjyoti, Miguel A Balzan, David S Nobes, and Brian A Fleck (2014). "Bubble formation and flow instability in an effervescent atomizer". In: *Journal of Visualization* 17.2, pp. 113–122.

Breton, Kevin, Brian A Fleck, and David S Nobes (2013). "A parametric study of a flash atomized water jet using a phase doppler particle analyzer". In: *Atomization and Sprays* 23.9.

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Milne, Andrew JB, Brian Fleck, David Nobes, Debjyoti Sen, Alidad Amirfazli, Mechanical Engineering Collaboration, et al. (2013). "Drag on Sessile Drops". In: *APS Meeting Abstracts*.

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Kazemimanesh, Mohsen, Larry W Kostiuk, Matthew R Johnson, Brian Fleck, and Jason S Olfert (2012). "Exploratory Investigation of the Effects of Distilled Water, Tap Water, and Salt Water on Flare Particulate Emissions". In: *Combustion Institute Canadian Section Spring Technical Meeting. Toronto, ON*.

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Rahman, MA, M Balzan, T Heidrick, and BA Fleck (2012). "Effects of the gas phase molecular weight and bubble size on effervescent atomization". In: *International Journal of Multiphase Flow* 38.1, pp. 35–52.

Torres, Luis A, Mohammad Mahmoudi, Brian A Fleck, David J Wilson, and David Nobes (2012). "Mean concentration field of a jet in a uniform counter-flow". In: *Journal of fluids engineering* 134.1.

Comyn, Graeme I, David S Nobes, and Brian A Fleck (2011). "Performance evaluation and wake study of a micro wind turbine". In: *Transactions of the Canadian Society for Mechanical Engineering* 35.1, pp. 101–117.

Gomez, Johana, Brian A Fleck, Jason S Olfert, and J McMillan (2011). "Influence of two-phase feed bubble size on effervescent atomization in a horizontal nozzle assembly". In: *Atomization and Sprays* 21.3.

Rahman, MA, BA Fleck, and D Matovic (May 2011). "Effects of Gas Phase Density on Effervescent Atomization". In: *ILASS Americas, 23rd Annual Conference on Liquid Atomization and Spray Systems*.

Rahman, MA, MR Islam, BA Fleck, D Matovic, and S Sanders (2011). "Scaling Of Effervescent Atomization And Two-Phase Flow". In: *24th European Conference on Liquid Atomization and Spray Systems, Estoril, Portugal*.

Rahman, MA, F Vakili, MA Islam, BA Fleck, D Matovic, and S Sanders (Dec. 2011). "Mass Flux Measurement of Two-Phase Spray by an Impulse Probe and PDPA". In: *Proceedings of the International Conference on Mechanical Engineering ICME2011 Dhaka, Bangladesh*.

Tan, Alan W, DS Nobes, BA Fleck, and MR Flynn (2011). "Gravity currents in two-layer stratified media". In: *Environmental fluid mechanics* 11.2, pp. 203–223.

Tan, AW, DS Nobes, BA Fleck, and MR Flynn (2011). "Erratum to: Gravity currents in two-layer stratified media". In: *Environmental fluid mechanics* 11.2, p. 225.

Ejim, CE, MA Rahman, A Amirfazli, and BA Fleck (2010). "Effects of liquid viscosity and surface tension on atomization in two-phase, gas/liquid fluid coker nozzles". In: *Fuel* 89.8, pp. 1872–1882.

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