



Editorial

Special Section on the 2021 Fluids Engineering Division Summer Meeting

The ASME *Journal of Fluids Engineering* (JFE) and the ASME Fluids Engineering Division (FED) unveil a special section of papers that were presented at the 2021 Fluids Engineering Division Summer Meeting. The FED conference cochairs were Professor Zhongquan (Charlie) Zheng and Professor Philipp Epple, whose dedicated service created an outstanding virtual conference platform. The conference was successful due to the hard work and dedication of the conference chairs and FED volunteers. The 2021 FEDSM was held Aug. 10–12, 2021, and included four plenary speakers and seven keynote talks plus hundreds of technical presentations.

The special section is pleased to include the 2019 Freeman Scholar review paper by Dr. Upendra Rohatgi (Brookhaven National Laboratory) titled “Verification, Validation and Uncertainty Quantification in Thermal Hydraulics.” The other paper topics include computational modeling using second-moment closure methods, in-line holography to reconstruct ligaments and droplets, and a theoretical approach to predict sluice gate discharge.

The special section also presents the winners of the Flow Visualization competition, organized by Prof. Philipp Epple. The competition is an initiative that began in 2017 and was expanded to award winners for still images and videos. The 2021 FEDSM winners were:

Image Category

- *First Place*: “Sphere Falling onto a Liquid Jet”, R. Rabbi et al. (Utah State University and Naval Undersea Surface Warfare)
- *Second Place*: “Experimental Observation of Lagrangian Coherent Structures in Perturbed Rayleigh-Benard Convection”, M. Watanabe (Waseda University)
- *Third Place*: “Flow Pattern on Microfin Enhanced Surfaces”, P. Li et al. (Kansas State University)

- *Honorable Mention*: M. Tadjfar et al. (Amirkabir University of Technology)

Video Category

- *First Place*: “Deformable Sphere Impact on Resting Droplets”, R. Rabbi et al. (University of Utah and University of Hawaii at Manoa)
- *Second Place*: “High-speed Visualization of Bubble Trapping Wakes in Liquid-gas Flow around a Cylinder”, D. Kim and M. J. Rau (The Pennsylvania State University)
- *Honorable Mention*: P. Li (Kansas State University)
- *Honorable Mention*: P. Epple et al. (Coburg University of Applied Sciences)

In closing, my sincerest gratitude is extended to JFE associate editor, Professor Epple, who shared the responsibilities. I would also like to thank the JFE editorial assistant, Ms. Colette Montague, who helped ensure timely processing, and the support of the ASME staff, especially Ms. Beth Darchi, Ms. Tamiko Fung, and Ms. Erica Hodge. Finally, thank you to our colleagues who served as reviewers, and of course the authors.

Francine Battaglia
Professor
Editor-in-Chief,
Journal of Fluids Engineering,
Department of Mechanical and
Aerospace Engineering,
University at Buffalo,
The State University of New York,
Buffalo, NY 14260
e-mail: fbattagl@buffalo.edu