

## Recent Journal Publications, January-March, 2020

Note that CoMFRE affiliates are identified by **bold** names.

- J.K. Bothell, N. Machicoane, D. Li, T.B. Morgan, A. Aliseda, A.L. Kastengren, and T.J. **Heindel**, "Comparison of X-ray and optical measurements in the near-field of an optically dense coaxial air-assisted atomizer", International Journal of Multiphase Flow, 2020, Vol. 125, Paper 103219, <https://doi.org/10.1016/j.ijmultiphaseflow.2020.103219>
- A. Chausalkar, C-B. M. Kweon, S-C. **Kong**, and J.B. **Michael**, "Leidenfrost behavior in drop-wall impacts at combustor-relevant ambient pressures", International Journal of Heat and Mass Transfer, 2020, 153, 119571. <https://doi.org/10.1016/j.ijheatmasstransfer.2020.119571>
- W. Dong, W. Li, K. Vessalas and K. **Wang**, "Mechanical and conductive properties of smart cementitious composites with conductive rubber crumbs", ES Materials & Manufacturing, 2020, 7, DOI: 10.30919/esmm5f711
- B. Kong and R. O. **Fox**, "A moment-based kinetic theory model for polydisperse gas-particle flows", Powder Technology, 2020, 365, 92-105.
- G. Li, J. Zhou, J. Yue, X. Gao, and K. **Wang**, "Effects of nano-SiO<sub>2</sub> and secondary water curing on the carbonation and chloride resistance of autoclaved concrete", Construction & Building Materials, 2020, 235, 117465
- J. Liu, K. **Wang**, Q. Zhang, G. Lomboy, L. Zhang, and J. Liu, "Effects of ultrafine powders on the properties of lubrication layer and highly flowable concrete", ASCE J. of CE Materials, 32: 5, May 2020, [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0003193](https://doi.org/10.1061/(ASCE)MT.1943-5533.0003193); <https://ascelibrary.org/doi/10.1061/%28ASCE%29MT.1943-5533.0003193>
- N. Panicker, A. **Passalacqua**, and R.O. **Fox**, "Computational study of buoyancy driven turbulence in statistically homogeneous bubbly flows", Chemical Engineering Science, 2020, 216, 115546. <https://doi.org/10.1016/j.ces.2020.115546>
- A. **Passalacqua**, F. Laurent, and R. O. **Fox**, "A second-order realizable scheme for moment advection on unstructured grids", Computer Physics Communications, 2020, 248, 106993.
- H. Qin, K. Manikandan GD, K. Wi, X. Zhang, and K. **Wang**, "Characterizing cement mixtures for concrete 3D printing", Manufacturing Letters, Accepted 3/4/2020
- M. Ray, F. Chowdhury, A. Sowinski, P. Mehrani, A. **Passalacqua**, "Eulerian modeling of charge transport in bi-disperse particulate flows due to triboelectrification", Physics of Fluids, 2020, 32, 023302. <https://doi.org/10.1063/1.5140473>; <https://aip.scitation.org/doi/10.1063/1.5140473>
- Y. Sargam, K. **Wang**, and J. Alleman, "Effects of modern concrete materials on thermal conductivity", ASCE J. of Civil Engineering Materials, 2020, 32(2), [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0003026](https://doi.org/10.1061/(ASCE)MT.1943-5533.0003026); <https://ascelibrary.org/doi/10.1061/%28ASCE%29MT.1943-5533.0003026>
- G. Shallcross, R. O. **Fox**, and J. Capecelatro, "A volume-filtered description of compressible particle-laden flows", International Journal of Multiphase Flows, **2020**, 122, 103138.
- K. Wi, V. Suresh, K. **Wang**, B. Li, and H. Qin, "Quantifying quality of 3D printed clay objects using a 3D structured light scanning system", Additive Manufacturing, 2020, 32, 100987, <https://doi.org/10.1016/j.addma.2019.100987>

- F. Zhang, J. Xia, G. Li, Z. Guo, H. Chang, and K. **Wang**, “Degradation of axial ultimate load-bearing capacity of circular thin-walled concrete-filled steel tubular stub columns after corrosion”, *Materials J.* (In press; accepted Feb 6, 2020)