

## Publications, 2<sup>nd</sup> Quarter, 2021:

- Awate, D.M., C.C. Pola, G.L. Gomes and **J.J. Juárez**, "3D printed imaging platform for portable cell counting," *Analyst*, online 24 May 2021. <https://doi.org/10.1039/D1AN00778E>
- Codoni, D., G. Moutsanidis, **M.-C. Hsu**, Y. Bazilevs, C. Johansen, A. Korobenko, "Stabilized methods for high-speed compressible flows: toward hypersonic simulations," *Computational Mechanics*, 67:785–809, 2021. [https://ui.adsabs.harvard.edu/link\\_gateway/2021CompM..67..785C/doi:10.1007/s00466-020-01963-6](https://ui.adsabs.harvard.edu/link_gateway/2021CompM..67..785C/doi:10.1007/s00466-020-01963-6)
- **Geredeli, P.G.**, "Bounded semigroup wellposedness for a linearized compressible flow structure PDE interaction with material derivative," *SIAM Journal on Mathematical Analysis*, 53 (2):1711-1744, 2021. <https://doi.org/10.1137/20M1345840>
- Johnson E.L., D.W. Laurence, F. Xu, C.E. Crisp, A. Mir, H.M. Burkhart, C.-H. Lee, M.-C. Hsu, "Parameterization, geometric modeling, and isogeometric analysis of tricuspid valves," *Computer Methods in Applied Mechanics and Engineering*, 384:113960, 2021. <https://doi.org/10.1016/j.cma.2021.113960>
- Li, G., N. Sliefert, **J.B. Michael**, and A.L. Yarin, "Blood backspatter interaction with propellant gases," *Physics of Fluids*, 33:043318, 2021. <https://doi.org/10.1063/5.0045214>
- McNamara, M.C., S.S. Aykar, R. Montazami, **N.N. Hashemi**, "Targeted microfluidic manufacturing to mimic biological microenvironments: cell-encapsulated hollow fibers," *ACS Macro Letters*, 10, 6:732–736, 2021. <https://doi.org/10.1021/acsmacrolett.1c00159>
- Orlando Jr., A.E., L.F.Barca, **T.J.Heindel**, T.S. Klein, and R.A. Medronho, "Gas Holdup and Flow Regime in a Bubble Column that Includes Enhanced Oil Recovery Chemicals," *Journal of Petroleum Science and Engineering*, 204: Paper 108675, 2021. <https://doi.org/10.1016/j.petrol.2021.108675>
- Saurabh, K., B. Gao, M. Fernando, S. Xu, B. Khara, M.A. Khanwale, **M.-C. Hsu**, **A. Krishnamurthy**, H. Sundar, **B. Ganapathysubramanian**, "Industrial scale large eddy simulations (LES) with adaptive octree meshes using immersogeometric analysis," *Computers and Mathematics with Applications*, 97:28-44, 2021. <https://doi.org/10.1016/j.camwa.2021.05.028>
- Scheirer, N., S. Holland, **A. Krishnamurthy**; "Fiber layup generation on curved composite structures," *Computer-Aided Design*, 136:103031, 2021. <https://doi.org/10.1016/j.cad.2021.103031>
- Shabaniverki, S., A. Alvarez-Valdivia, and **J.J. Juárez**, "3D printed self-propelled composite floaters," *Smart Materials and Structures*, 30, paper 075015. <https://doi.org/10.1088/1361-665X/ac01a9>
- Sliefert, N., G. Li, **J.B. Michael**, and A.L. Yarin, "Experimental and Numerical Study of Blood Backspatter Interaction with Firearm Propellant Gases," *Physics of Fluids*, 33:043319, 2021. <https://doi.org/10.1063/5.0045219>
- Tekeste, M.Z., Loran R. Balvanz, A Boesenberg, F Al-Aani, J Hatfield, "Hardened Edges Effects On Wear Characteristics of Cultivator Sweeps Using Circular Soil Bin Test", *Journal of Tribology - Technical Brief*, 144 (2):1-9, 2021. <https://doi.org/10.1115/1.4050805>
- Xu, F, E.L. Johnson, C. Wang, A. Jafari, C.H. Yang, M.S. Sacks, **A. Krishnamurthy**, **M.-C. Hsu**, "Computational investigation of left ventricular hemodynamics following bioprosthetic aortic and mitral valve replacement," *Mechanics Research Communications*, 112:103604, 2021. <https://doi.org/10.1016/j.mechrescom.2020.103604>