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Education

Ph.D. Engineering Management, Old Dominion University.

Sample Journal Publications

(* *graduate students*)

- Johnson, J., Padilla, J., and Diallo, S. (2020). Closing the Academic Achievement Gap: A System Dynamics Study. *Journal of Simulation*, DOI: 10.1080/17477778.2020.1718021.
- Padilla, J., Kavak, H*, Lynch, C*., Gore, R., and Diallo, S. (2018). Temporal and spatiotemporal investigation of tourist attraction sentiment on Twitter. *Public Library of Science (PLoS) ONE* 13(6): e0198857.
- Padilla, J., Diallo, S., Lynch, C*., and Gore, R. (2018). Observations on the practice and profession of modeling and simulation: a survey approach. *Simulation: Transactions of the Society for Modeling and Simulation International* 94(6), 493-506.
- Gore, R., Padilla, J. and Diallo, S. (2017). Markov Chain modeling of cyber threats. *The Journal of Defense Modeling and Simulation* 14(3), 233-244.
- Padilla, J., Diallo, S., Kavak, H*., Sahin, O*., Sokolowski, J., and Gore, R. (2016). Semi-automated Initialization of Simulations: An Application to Healthcare. *The Journal of Defense Modeling and Simulation* 13(2), 171-182.
- Diallo, S., Padilla, J., Papelis, Y., Gore, R., and Lynch, C. J.* (2016). Content analysis to classify and compare Live, Virtual, Constructive simulations and System of Systems. *The Journal of Defense Modeling and Simulation* 13(4), 367-380.
- Gore, R. Diallo, S., and Padilla, J. (2015). You Are What You Tweet: Explaining the Geographic Variation of the Obesity Rate in the United States Through Twitter. *Public Library of Science (PLoS) ONE* 10(9): e0133505.
- Diallo, S., Gore, R., Padilla, J. and Lynch, C.* (2015). An overview of modeling and simulation using content analysis, *Scientometrics* 103(3), 977-1002.
- Tolk, A, Diallo, S., Padilla, J., and Herencia-Zapana, H. (2013). Reference Modeling in support of M&S – Foundations and Applications. *Journal of Simulation* 7(2), 69-82.

Sample Peer-reviewed Conference Papers

(* *graduate students*; ** *high school students*, ****undergraduate students*)

- Kavak, H., Padilla, J., Diallo, S., and Barraco, A. (2020). Modeling the modeler: an empirical study on how modelers learn to create simulations. *Spring Simulation Conference*. Fairfax, VA.
- Padilla, J., Shuttleworth, D., and O'Brien, K.*** (2019). Agent-based model characterization using natural language processing. *Winter Simulation Conference*. National Harbor, MD.
- Frydenlund, E., Foytik, P., Ouattara, A., and Padilla, J. (2018). "Where Are They Headed Next? Modeling Emergent Displaced Camps in the DRC Using Agent-Based Models." *Proceedings of the 2018 Winter Simulation Conference*. Gothenburg, Sweden.
- Padilla, J., Frydenlund, E., Wallewik, H., and Haaland, H. (2018). Model co-creation from a modeler's perspective: lessons learned from the collaboration between ethnographers and modelers. *International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation*, 70-75. Washington DC.
- Vernon-Bido, D.*, Grygorian, G.*, Kavak, H.*, and Padilla, J. (2018). Assessing the impact of cyberloafing on cyber risk. *Spring Simulation Conference*, Baltimore, MD.
- Padilla, J., Lynch, C.*, Kavak, H.*, Evett, S.***, Nelson, D.***, Carson, C.***, and del Villar, J.** (2017). Storytelling and simulation creation. *Winter Simulation Conference*, 4288-4299. Las Vegas, NV.
- Mustafee, N., Powell, J., Brailsford, S., Diallo, S., and Padilla, J. (2015). Hybrid simulation studies and hybrid simulation systems: definitions, challenges, and benefits. *Winter Simulation Conference*, 1678-1692. Huntington Beach, CA.
- Padilla, J. J., Diallo, S. Y., Barraco, A., Lynch, C. J.*, and Kavak, H.* (2014). Cloud-based simulators: making simulations accessible to non-experts and experts alike. *Winter Simulation Conference*, 3630-3639. Savannah, GA.
- Tolk, A., Heath, B., Ihrig, M., Padilla, J., Page, E., Suarez, D., Szabo, C., Weirich, P., and Yilmaz, L. (2013). Epistemology of modeling and simulation. *Winter Simulation Conference*, 1152-1166. Washington DC.
- Diallo, S., Herencia-Zapana, H., Padilla, J., and Tolk, A., (2011). Understanding Interoperability. *Spring Simulation Conference*, Boston, MA.

Invited Panelist

- Shults, L., Frydenlund, E., Padilla, J., Lemos, C., Van Der Walle, B. (2017). Monitoring and Modeling the Refugee Crisis. *Lesbos Dialogues: Technology and the Refugee Crisis*. Mytilene, Greece.
- Armstrong, R., Padilla, J., Robinson, H., and Yates, W. (2017). Context-based Research: Live Virtual Constructive Simulations. *SSH Research Summit*. Orlando, FL.
- Mustafee, N., Powell, J., Brailsford, S., Diallo, S., and Padilla, J. (2015). Hybrid simulation studies and hybrid simulation systems: definitions, challenges, and benefits. *Winter Simulation Conference*, 1678-1692. Huntington Beach, CA.

- Tolk, A., Heath, B., Ihrig, M., Padilla, J., Page, E., Suarez, D., Szabo, C., Weirich, P., and Yilmaz, L. (2013). Epistemology of modeling and simulation. *Winter Simulation Conference*, 1152-1166. Washington DC.
- Ferebee, M., Hollingsworth, C., Padilla, J., and Walker, T. (2011). New Tools – New Rules – New Year. *Cox Business Executive Discussion Series*. Cathy Lewis (Moderator). Chesapeake, VA.

Sample Book Chapters

- Frydenlund, E., Jones, E., and Padilla, J. (2018) “Mobility in crisis: An agent-based model of refugees’ flight to safety.” In S. Y. Diallo, W. J. Wildman, F. L. Shults, and A. Tolk (eds.) *Human Simulation: Perspectives, Insights, and Applications*. Forthcoming 2018.
- Johnson, J. and Padilla, J. (2018). An ontology of emergence. In L. Rainey and M. Jamshidi (Eds.): *Engineering Emergence: A Modeling and Simulation Approach*. CRC Press.
- Padilla, J. (2012). Military Simulation Systems. In A. Tolk (Ed.) *Engineering Principles of Combat Modeling and Distributed Simulation*. Wiley.

Recent Research Grants

- Computational Framework for Assessing Absorptive Capacity (2019-2022). J. Padilla (VMASC/ODU, PI). With: E. Frydenlund (VMASC/ODU, Co-PI), J. Behr (VMASC/ODU, Co-PI), M. Allen (Political Science and Geo. Dept./ODU, Co-PI), A. Barraco (VMASC/ODU, Co-PI). Minerva Initiative, Department of Defense. \$1,490,946.
- Center of Excellence in Cyber Security (2015-2020). J. Padilla (VMASC/ODU, PI). With: S. Diallo (VMASC/ODU, Co-PI), R. Gore (VMASC/ODU, Co-PI), A. Barraco (VMASC/ODU, Co-PI). Norfolk State University (sponsoring), Office of the Assistant Secretary of Defense for Research and Engineering (contracting), \$984,352.
- Health Dynamics in Protracted Refugee Situations (2017-2018). E. Frydenlund (VMASC/ODU, PI). With: J. Padilla (VMASC/ODU, Co-PI). ODU Internal NCCMMS, \$70,000.
- Towards a DoD Modeling and Simulation Enterprise (2014-2015). S. Diallo (VMASC/ODU, PI). With: J. Padilla (VMASC/ODU, Co-PI). Naval Air Warfare Center TSD, \$149,995.