

# ERIKA FRYDENLUND, Ph.D.

## Virginia Modeling, Analysis and Simulation Center

Old Dominion University

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## PROFILE

Interdisciplinary researcher specializing in agent-based modeling, participatory methods, and humanitarian simulation. I have led or co-led over \$8M in competitively funded projects on migration, cultural dynamics, and misinformation, with collaborators across Europe, Africa, and the Americas. Fieldwork experience in Colombia, Greece, Rwanda, South Africa, and the U.S.–Mexico border. My work bridges computational modeling and social science to study complex social systems with real-world policy relevance.

## EDUCATION

Old Dominion University, Norfolk, Virginia	
<b>Ph.D., International Studies</b>	2015
Title: <i>'Home was Congo': Refugees and Durable Displacement in the Borderlands of 1,000 Hills</i>	
Committee: Jennifer N. Fish, David C. Earnest, Dorian Crosby	
Old Dominion University, Norfolk, Virginia	
<b>Graduate Certificate, Women's Studies</b>	2012
Old Dominion University, Norfolk, Virginia	
<b>Graduate Certificate, Modeling and Simulation</b>	2010
Virginia Polytechnic Institute and State University, Blacksburg, Virginia	
<b>M.S., Applied Statistics</b>	2006
University of South Carolina, Columbia, South Carolina	
<b>B.S., Applied Mathematics</b> ; Cognate in Computer Science	2002

## ACADEMIC APPOINTMENTS

Research Associate Professor, Virginia Modeling, Analysis and Simulation Center Old Dominion University, Norfolk, VA	2023-present
Research Assistant Professor, Virginia Modeling, Analysis and Simulation Center Old Dominion University, Norfolk, VA	2016-2023
Senior Project Scientist, Virginia Modeling, Analysis and Simulation Center (VMASC) Old Dominion University, Norfolk, VA	2013-2016
Adjunct Lecturer, Women's Studies Department Old Dominion University, Norfolk, Virginia	2015-present

## ACADEMIC AFFILIATIONS

Affiliate Faculty, Centre for Refugee Studies York University, Toronto, Canada	2023-present
Faculty Affiliate, Institute for Coastal Adaptation and Resilience Old Dominion University, Norfolk, VA	2024-present

Affiliate Faculty, Graduate Program in International Studies  
Old Dominion University, Norfolk, Virginia

2017-present

## AWARDS AND DISTINCTIONS

Panel Fellow, Game Changers Academy for Advancing Research Innovation CMMI Division of the National Science Foundation	2021
1 <sup>st</sup> Place Paper – Safety & Security Track, D4R Data for Refugees Challenge Team lead, with M.Y. Sener, R. Gore, C. Boshuijzen-van Burken, E. Bozdog, & C. de Kock	2019
John R. Broderick Diversity Champion Award <i>The Office of Institutional Equity &amp; Diversity</i> , Old Dominion University	2018
ODU Faculty Exchange Selected Participant, University of Kitakyushu, Japan	August 2018
Graduate Workshop in Computational Social Sciences Selected Participant, Santa Fe Institute	2015
Shining Star Recognition, Student-nominated teaching recognition award <i>Division of Student Engagement and Enrollment Services</i> , Old Dominion University	2015
Pay it Forward: A Workshop of Women Helping Women in International Relations Selected Participant, International Studies Association Annual Conference	2014

## RESEARCH GRANTS

**Total funding as PI: \$3.5M | as Co-PI: \$4.6M**

*Projects span forced migration, humanitarian modeling, migration governance, public health, and misinformation. Methods include participatory research, simulation modeling, surveys, and cross-cultural fieldwork. In addition, I provided methodological and social science expertise to externally funded modeling and simulation projects led by VMASC colleagues, including work on risk assessment, infrastructure degradation, and public health response.*

**Principal Investigator**, OSD Minerva Research Initiative, “Beyond the Clock: Understanding Cross-Cultural Temporal Orientation of Military Officers,” September 2024 – September 2027 (revised: March 2025). \$1.6M. (ODU Co-PIs: Jose J. Padilla, Krzysztof Rechowicz, Faryaneh Poursardar, Lee Slater, Angelica Huizar, D.E. Wittkower, Peter Schulman; Partner Institution PIs: Apostolos Spanos (University of Agder); Eteri Tsintsadze-Maass (Hampton University); Military Liaisons: Joseph Breedlove; Robert V. Gusentine).

Co-Principal Investigator, OSD Minerva Research Initiative, “Un-Resilience: Drawing Insights from Societal Collapse,” September 2024 – September 2027 (revised: March 2025). \$1.6M. (ODU PI: Jose J. Padilla; ODU Co-PIs: Krzysztof Rechowicz, Faryaneh Poursardar, Joshua Behr; Partner Institution PIs: Katherine Palcio (UniNorte), Eteri Tsintsadze-Maass (Hampton University)).

**Principal Investigator**, OSD Minerva Research Initiative, “What’s Missing? Innovating Interdisciplinary Methods for Hard-to-Reach Environments,” July 2022 – July 2025 (revised: February 2025). \$1.7M. (ODU Co-PIs: Jose J. Padilla (ODU VMASC), Michele Weigle (ODU Computer Science), Michael L. Nelson (ODU Computer Science), Jennifer N. Fish (ODU Women’s Studies); Partner Institution PIs: Katherine Palacio (UniNorte), Michaela Hynie (York University), Hanne Haaland (UiA), Hege Wallevik (UiA)). Independent Researchers: Zacheus Abang (South Africa); Cyrillus Swinne (Colombia).

Co-Principal Investigator, Virginia Commonwealth Cyber Initiative (CCI), “From Gap to Gain: Counter Human Smuggling by Identifying Deceptive Advertisements in Social Media,” December 2022 – December 2023. \$60,000. (PI: Faryaneh Poursardar)

Co-Principal Investigator, Old Dominion University Data Science Seed Funding, “Data Science for Social Good: Mining and Visualizing Worldwide News to Monitor Xenophobic Violence Towards Migrants and Refugees,” July 2022 – June 2023. \$38,000. (PI: Michele Weigle, ODU Computer Science).

Senior Personnel/ Mentor, National Science Foundation, “REU Site: Research Experiences for Undergraduates in Disinformation Detection and Analytics,” March 2022 – February 2025. \$323,082. (PI: Sampath Jayarathna (ODU Computer Science); co-PI: Jian Wu (ODU Computer Science); Senior Personnel/Mentors: Michele Weigle (ODU CS), Michael L. Nelson (ODU CS), Faryaneh Poursardar (ODU CS), Vikas Ganjigunte Ashok (ODU CS), Anne Perrotti (ODU Education)).

Co-Principal Investigator, US Department of Education, “Graduate Research Opportunities and Workforce Readiness in Modeling and Simulation (GROW M&S),” January 2022 – December 2024. \$1.15M (PI: Jessica Johnson (ODU VMASC); co-PIs: Jose J. Padilla, Sachin Shetty, Masud Rana, Yiannis Pangelis, Krzysztof Rechowicz, Rafael Diaz, Katherine Smith, Michael Nelson, Deri Draper-Amason, Heather Richter).

**Principal Investigator**, Hampton Roads Biomedical Research Consortium, “By the community, for the community: Participatory Research to Understand Disparities in Vaccine Uptake,” October 2021 – July 2022. \$100,904. (Co-PI: Alexandra Leader (EVMS), Tancy Vandecar-Burdin (ODU)).

Co-Principal Investigator, OSD Minerva Research Initiative, “Computational Framework for Assessing Absorptive Capacity,” September 2019 – September 2022. \$1.5M. (PI: Jose J. Padilla; Co-PIs: Joshua Behr and Michael Allen (ODU), Apostolos Spanos (UiA), Ioannis Spilanis (U. of Aegean), and Fred Bidandi (U. of Western Cape))

**Principal Investigator**, Old Dominion University Medical Modeling & Simulation Seed Funding, “Health Dynamics in Protracted Refugee Situations,” August 2017 – July 2018. \$70,000. (Co-PI: Jose J. Padilla)

**Principal Investigator**, Old Dominion University Program for Undergraduate Research and Scholarship, “Social Justice & Transportation Equity,” January – December 2016. \$8,086.10

Co-Principal Investigator, Virginia Department of Emergency Management, “Workshop on Long-term Degradation of Interdependent Critical Infrastructures in Hampton Roads,” January – March 2016. \$20,100. (Co-PIs: R. Michael Robinson, Barry Ezell, and Andrew J. Collins)

## FIELD RESEARCH EXPERIENCE

- **Greece (Lesvos)** (2017–ongoing): Host community response to migration
- **Colombia** (2019–2024): Venezuelan migration, host communities
- **El Paso, Texas** (2022): U.S.-Mexico border migration and policy
- **Hampton Roads, Virginia** (2021–2022): Vaccine equity and public health disparities
- **South Africa** (2011; 2019): Refugee reception, citizenship, xenophobia
- **Rwanda** (2011, 2013, 2014): Displacement, health systems, refugee populations
- **Haiti** (2014): Gender-based violence, community organizing
- **Senegal** (2012): NGO engagement, political dialogue

## INTERNATIONAL RESEARCH COLLABORATIONS

- **University of Agder (Norway):** Ongoing co-authorship and collaborative fieldwork on migration and humanitarian response, including ethnographic-simulation in Lesvos.
- **York University (Canada):** Affiliate of the Centre for Refugee Studies; co-PI on interdisciplinary projects addressing science of team science and research in hard-to-reach environments.
- **Universidad del Norte (Colombia):** Partner in mixed-methods research on Venezuelan migration and host communities; co-led survey design and field implementation in Barranquilla and Cucuta.
- **University of the Aegean (Greece) & University of the Western Cape (South Africa):** Co-authored qualitative, quantitative, and social simulation studies on resilience and absorptive capacity through U.S. Minerva-funded grants.
- **Hampton University (USA):** Collaborator on interdisciplinary studies of identity, resilience, and cross-cultural dynamics, including using arts-based methods.
- **University of Luxembourg:** Digital History collaborations, with a pilot digital histories workshop held in June 2025 at UiA's Metochi Study Center in collaboration with UiA.

## TEACHING EXPERIENCE

Designed and taught graduate-level courses in refugee studies, agent-based modeling, feminist research methods, and international studies research methods. Supervised **40 funded research assistants** (12 BA, 12 MA, 16 PhD); **17 direct research assistant supervisions** (5 Bachelor's; 6 Master's; 8 PhD). **Chaired 8 graduate theses/dissertations**; served on 11 graduate thesis/dissertation committees.

(\* Identifies courses I designed)

*Introduction to Research Methods in International Studies (Graduate)	2017-2024
*Refugee Studies: Women on the Move (Graduate: Women's/International Studies)	2022-2023
*Introduction to Agent-based Modeling (Graduate)	2021; 2024
Modeling & Simulation in the Life Sciences (Graduate, co-taught seminar)	2021
Advanced Statistical Techniques for International Studies (Graduate)	2018
*Refugee Studies (Graduate)	2016
Feminist Research Methodology (Undergraduate/Graduate)	2015; 2017
*Gender & Migration (Graduate, co-taught seminar)	2011
Introduction to Women's Studies (Undergraduate)	2011
Statistics for Decision-making (Undergraduate)	2008
Pre-Algebra, Algebra, Pre-Calculus, Calculus (Undergraduate)	2007
English as a Second Language (High School)	2002-2005

## PUBLICATIONS

(\* Identifies Students)

### Peer-Reviewed Journal Articles

- Botello, Jhon G.\*, Katherine Palacio, **Erika Frydenlund**, Humerto Llinás, and José J. Padilla. "Adapting and Validating a Survey to Assess Host Communities Support for Migration." *Social Indicators Research* (2024). <https://doi.org/10.1007/s11205-024-03397-6>
- Frydenlund, Erika**, Joseph Martínez\*, Jose J. Padilla, Katherine Palacio, and David Shuttleworth\*. (2024) "Modeler in a Box: How Can Large Language Models Aid in the Simulation Modeling Process?" *SIMULATION*. 2024;0(0). doi:[10.1177/00375497241239360](https://doi.org/10.1177/00375497241239360)
- Romero, Liss D.\*, Jose J. Padilla, Katherine Palacio, and **Erika Frydenlund**. (2024). "Mapping cooperation: insights into Colombia's humanitarian response to migration from Venezuela".

*Frontiers in Human Dynamics: Dynamics of Migration and (Im)Mobility*, 6.  
<https://doi.org/10.3389/fhumd.2024.1345110>

Lynch, Christopher J., E.J. Jensen, Virginia Zamponi, Kevin O'Brien, **Erika Frydenlund**, & Ross Gore. (2023) "A structured narrative prompt for prompting narratives from Large Language Models: Sentiment assessment of ChatGPT-generated narratives and real tweets." *Future Internet*, 15, 375. DOI: 10.3390/fi15120375.

Sa, Lydia Cleveland\* and **Erika Frydenlund**. (2023) "The shortfalls of vulnerability indexes for public health decision-making in the face of emergent crises: The case of COVID-19 vaccine uptake in Virginia. *Frontiers in Public Health. Women in Science: Public Health Policy* 2022. Vol 11.  
<https://doi.org/10.3389/fpubh.2023.1042570>

Collins, Andrew J., **Erika Frydenlund**, Christopher J. Lynch, & R. Michael Robinson. (2022) "Acceptance sampling to aid in the verification of computational simulations." *International Journal of Modeling, Simulation, and Scientific Computing*, DOI:10.1142/s1793962322500441 (pre-print available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3373344](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3373344))

**Frydenlund, Erika**. (2021). "Modeling and Simulation as a Bridge to Advance Practical and Theoretical Insights about Forced Migration Studies." *Journal on Migration and Human Security*. DOI: 10.1177/23315024211035771

**Frydenlund, Erika** and Christa de Kock (2020). "Agent-Based Modeling Within Forced Migration Research: A Review and Critique." *Refugee Review*. Vol. 4.

Collins, Andrew J. and **Erika Frydenlund**. (2017). "Strategic group formation in agent-based simulation." *Simulation: Transactions of the Society for Modeling and Simulation International*. DOI: 10.1177/0037549717732408.

Elzie, Terra\*, **Erika Frydenlund**, Andrew J. Collins, and R. Michael Robinson. (2016). "Panic that Spreads: Socio-Behavioral Contagions in Pedestrian Evacuations." *Transportation Research Record: Journal of the Transportation Research Board*. No. 2586. DOI: 10.3141/2586-01.

Collins, Andrew J., **Erika Frydenlund**, R. Michael Robinson and Meçit Cetin (2015). "Exploring a Toll Auction Mechanism Enabled by Vehicle-To-Infrastructure Technology." *Transportation Research Record: Journal of the Transportation Research Board*. 2530: 106-113. ISSN: 0361-1981

Collins, Andrew J., Peter Foytik, **Erika Frydenlund**, R. Michael Robinson, and Craig A. Jordan (2015). "Generic Incident Model for Investigating Traffic Incident Impacts on Evacuation Times in Large-Scale Emergencies." *Transportation Research Record: Journal of the Transportation Research Board*, 2459: 11-17.

Elzie, Terra\*, **Erika Frydenlund**, Andrew Collins, and R. Michael Robinson. (2015). "Conceptualizing Intra- and Inter-Group Dynamics within a Controlled Crowd Evacuation." *Journal of Emergency Management*. 13(2): 109-120.

### Peer-Reviewed Conference Papers

Martínez, Joseph\*, Brian Llinas\*, Jhon G. Botello\*, Jose J. Padilla, & **Erika Frydenlund**, "Enhancing GPT-3.5's Proficiency in NetLogo Through Few-Shot Prompting and Retrieval-Augmented Generation," *2024 Winter Simulation Conference (WSC)*, Orlando, FL, USA, 2024, pp. 666-677, DOI: 10.1109/WSC63780.2024.10838967.

Brian Llinas\*, Guljannat Huseynli\*, Erika Frydenlund, Katherine Palacio, Humberto Llinas, & Jose J. Padilla. (2023). "Assessing Media's Representation of Frustration Towards Venezuelan Migrants in Colombia." In R. Thomson, S. Al-Khateeb, A. Burger, P. Park, & A. A. Pyke, *Social, Cultural, and Behavioral Modeling: SBP-BRIMS* 2023. (Vol. 14161). Cham: Springer International Publishing. DOI: [https://doi.org/10.1007/978-3-031-43129-6\\_13](https://doi.org/10.1007/978-3-031-43129-6_13)

- Clark, Mackenzie\*, **Erika Frydenlund**, & Jose J. Padilla. (2021). Network Structures and Humanitarian Need. In R. Thomson, M. N. Hussain, C. Dancy, & A. Pyke (Eds.), *Social, Cultural, and Behavioral Modeling: SBP-BRiMS 2021*. (Vol. 12720, pp. 214-223). Cham: Springer International Publishing. DOI: [https://doi.org/10.1007/978-3-030-80387-2\\_21](https://doi.org/10.1007/978-3-030-80387-2_21)
- Yesilbas, Veysel, Jose J. Padilla, & **Erika Frydenlund**. (2021). An Analysis of Global News Coverage of Refugees Using a Big Data Approach. In R. Thomson, M. N. Hussain, C. Dancy, & A. Pyke (Eds.), *Social, Cultural, and Behavioral Modeling: SBP-BRiMS 2021* (Vol. 12720, pp. 111-120). Cham: Springer International Publishing. DOI: [https://doi.org/10.1007/978-3-030-80387-2\\_11](https://doi.org/10.1007/978-3-030-80387-2_11)
- Fretz, Alexander L.\*, Jose J. Padilla, & **Erika Frydenlund**. (2021). The Integrated Game Transformation Framework and Cyberwar: What 2x2 Games Tell Us About Cyberattacks. In R. Thomson, M. N. Hussain, C. Dancy, & A. Pyke (Eds.), *Social, Cultural, and Behavioral Modeling: SBP-BRiMS 2021* (Vol. 12720, pp. 174-183). Cham: Springer International Publishing. DOI: [https://doi.org/10.1007/978-3-030-80387-2\\_17](https://doi.org/10.1007/978-3-030-80387-2_17)
- Hanne Haaland, Hege Wallevik, **Erika Frydenlund**, & Jose J. Padilla. (2020). "Modelers and Ethnographers as Co-Creators of Knowledge: Do We Belong Together?" In Amanda Hughes, Fiona McNeill, & Christopher W. Zobel (Eds.), *ISCRAM 2020 Conference Proceedings – 17th International Conference on Information Systems for Crisis Response and Management* (pp. 1113–1121). Blacksburg, VA (USA): Virginia Tech. Accessible online: [https://idl.iscram.org/files/hannehaaland/2020/2301\\_HanneHaaland\\_et al2020.pdf](https://idl.iscram.org/files/hannehaaland/2020/2301_HanneHaaland_et al2020.pdf)
- Frydenlund E.**, Padilla J., Haaland H., Wallevik H. (2020) "The Rise and Fall of Humanitarian Citizen Initiatives: A Simulation-Based Approach." In: Thomson R., Bisgin H., Dancy C., Hyder A., Hussain M. (eds) *Social, Cultural, and Behavioral Modeling*. SBP-BRiMS 2020. Lecture Notes in Computer Science, vol 12268. Springer, Cham. [https://doi.org/10.1007/978-3-030-61255-9\\_25](https://doi.org/10.1007/978-3-030-61255-9_25)
- Salimi, Khadijeh\*, **Erika Frydenlund**, Jose J. Padilla, Hanne Haaland, and Hege Wallevik (2019). "The Role of Elites in the Diffusion of Social Norms of Humanitarianism." In *Proceedings of the Annual Simulation Symposium*, 1-12. Tucson, Arizona: Society for Computer Simulation International. DOI: 10.23919/SpringSim.2019.8732925
- Salimi, Khadijeh\*, **Erika Frydenlund**, Jose J. Padilla, Hege Wallevik, and Hanne Haaland (2018). "How Does Humanitarianism Spread? Modeling the Origins of Citizen Initiatives Through Norm Diffusion." *Proceedings of the 2018 Winter Simulation Conference*. Gothenburg, Sweden. December 9-12. DOI:10.1109/WSC.2018.8632287
- Frydenlund, Erika**, Peter Foytik, Alain Ouattara, and Jose J. Padilla (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. December 9-12. DOI: 10.1109/WSC.2018.8632555
- Padilla, Jose J., **Erika Frydenlund**, Hege Wallevik, and Hanne Haaland (2018). "Model Co-Creation from a Modeler's Perspective: Lessons learned from the collaboration between ethnographers and modelers." In: Thomson R., Dancy C., Hyder A., Bisgin H. (eds) *Social, Cultural, and Behavioral Modeling*. SBP-BRiMS 2018. Lecture Notes in Computer Science, vol 10899. Springer, Cham. DOI: 10.1007/978-3-319-93372-6\_8
- Frydenlund, Erika** and Jose J. Padilla (2017). "Modeling the impact of protraction on refugee identity." In: Lee D., Lin YR., Osgood N., Thomson R. (eds) *Social, Cultural, and Behavioral Modeling*. SBP-BRiMS 2017. Lecture Notes in Computer Science, vol 10354. Springer, Cham. DOI: [https://doi.org/10.1007/978-3-319-60240-0\\_25](https://doi.org/10.1007/978-3-319-60240-0_25)



- Vernon-Bido, Daniele\*, **Erika Frydenlund**, Jose J. Padilla, and David C. Earnest (2017). "Durable solutions and potential protraction: The Syrian refugee case." Proceedings of the 2017 Spring Simulation Multi-Conference. Virginia Beach, VA. April 23-26.
- Frydenlund, Erika**, Jose J. Padilla, and David C. Earnest (2017). "A theoretical model of identity shift in protracted refugee situations." Proceedings of the 2017 Spring Simulation Multi-Conference. Virginia Beach, VA. April 23-26.
- Collins, Andrew and **Erika Frydenlund** (2016). "Agent-based modeling and Strategic group formation: A refugee case study." Proceedings of the 2016 Winter Simulation Conference. Washington, D.C. December 11-14.
- Collins, Andrew and **Erika Frydenlund**. (2016). "Strategic Group Formation in Agent-based Simulation." Prepared for the 2016 Spring Simulation Multi-Conference. Pasadena, CA: April 2016.
- Erika Frydenlund**, Andrew J. Collins, Craig A. Jordan, Peter B. Foytik, and R. Michael Robinson. (2016). "When the money runs dry: A system dynamics approach to critical infrastructure investment." Prepared for the 2016 Spring Simulation Multi-Conference. Pasadena, CA: April 2016.
- Collins, Andrew, **Erika Frydenlund**, Terra Elzie\*, and R. Michael Robinson. (2015). "Agent-based Pedestrian Evacuation Modeling: A one-size fits all approach?" Prepared for the 2015 Spring Simulation Multi-Conference/Agent-Directed Simulation (ADS) Symposium. Alexandria, VA: April 2015.
- Collins, Andrew, **Erika Frydenlund**, Terra Elzie\*, and R. Michael Robinson. (2015). "Group Dynamics and Exit-blocking Behaviors: A look at pedestrian modeling evacuations." Prepared for the Transportation Research Board 2015 Annual Meeting. Washington, D.C.: January 2015.
- Collins, Andrew, **Erika Frydenlund**, R. Michael Robinson, Mecit Cetin. (2015). "Exploring a Toll Auction Mechanic Enabled by Vehicle-to-Infrastructure Technology." Prepared for the Transportation Research Board 2015 Annual Meeting. Washington, D.C.: January 2015.
- Frydenlund, Erika**, Terra Elzie\*, Andrew Collins, and R. Michael Robinson. (2014). "A Hybridized Approach to Validation: The Role of Sociological Research Methods in Pedestrian Modeling." Transportation Research Procedia 2(0): 697-705.
- Collins, Andrew, Terra Elzie\*, **Erika Frydenlund**, and R. Michael Robinson. (2014) "Do Groups Matter? An Agent-based Modeling Approach to Pedestrian Egress." Transportation Research Procedia 2(0): 430-435.

### Manuscripts Under Review

- Botello, Jhon G.\*, Brian Llinas\*, Jose J. Padilla, & **Erika Frydenlund**, "Toward Automating System Dynamics Modeling: Evaluating LLMs in the Transition from Narratives to Formal Structures," (April 11, 2025) – under review at WinterSim 2025 conference.
- Mozingo-McLeod, Meaghan\*, Ginger Watson-Papelis, & **Erika Frydenlund**, "Assessing the Effectiveness of an Introduction to AI in a Hybrid Graduate Research Course," (February 18, 2025) – under review at AECT International Convention 2025.
- Romero, Liss D.\*, Katherine Palacio, Jose J. Padilla, Humberto Llinas, **Erika Frydenlund**, Valeria Silgado, Leidy Gonzalez, & Daniel Bolivar, "Social Safety and Social Security: Validating Context-Specific Instruments for Informal Settlements (November 25, 2024) – under review
- Gonzalez, Madison\* and **Erika Frydenlund**. "Discomfort in Public Spaces of Appearance: An examination of water security in the Western Cape around the Day Zero Drought" (May 11, 2022). Available at SSRN: <https://ssrn.com/abstract=4107942> (Preprint).
- Frydenlund, Erika**, Jose J. Padilla, Madison Gonzalez\*, Veysel Yesilbas. "Which countries drive the news about refugees?" (June 6, 2022) – under review

## Book Chapters

- Frydenlund, Erika**, Hanne Haaland, Jose J. Padilla, Hege Wallevik (alphabetical). (2023). "Citizen Initiatives in Humanitarian Aid: Lesbos, Greece as a case in bottom-up humanitarian assistance mobilization" In H. Haaland, S. Kinsbergen, L. Schulpen, and H. Wallevik (Eds.), *The Rise of Small-Scale Development Organisations: The Emergence, Positioning, and Role of Citizen Aid Actors*.
- Frydenlund, Erika** and Jose J. Padilla. (2022). "Opportunities and Challenges of using Computer-Based Simulation in Migration and Displacement Research: A Focus on Lesbos, Greece." In K. Grabska, and C. Clark-Kazak (Eds.), *Documenting Displacement: Questioning Methodological Boundaries in Forced Migration Research*. Montreal, Canada: McGill-Queen's University Press. ISBN: 9780228008330
- Frydenlund, Erika**, Meltem Y.Şener, Ross Gore, Christine Boshuijzen-van Burken\*, Engin Bozdog, & Christa de Kock\* (2019). "Characterizing the Mobile Phone Use Patterns of Refugee Hosting Provinces in Turkey." In A. A. Salah, A. Pentland, B. Lepri, & E. Letouzé (Eds.), *Guide to Mobile Data Analytics in Refugee Scenarios: The 'Data for Refugees Challenge' Study*. Switzerland: Springer International Publishing. ISBN: 978-3-030-12555-4
- Frydenlund, Erika**, Etta C. Jones\*, and Jose J. Padilla. (2019) "Mobility in crisis: An agent-based model of refugees' flight to safety." In Saikou Y. Diallo, Wesley J. Wildman, F. LeRon Shults, and Andreas Tolk (eds.) *Human Simulation: Perspectives, Insights, and Applications*. Springer, Cham. ISBN: 978-3-030-17092-9
- Erika Frydenlund** and David. C. Earnest. (2018) "Emergence in Information Economies: An agent-based modeling perspective." In Saurab Mittal et al., (eds.) *Emergent Behavior in Complex Systems Engineering: A modeling and simulation approach*. Wiley. ISBN: 978-1-119-37886-0
- Earnest, David C. and **Erika Frydenlund**. (2017) "Flipping Coins and Coding Turtles." In Saurab Mittal et al., (eds.) *Guide to Simulation-based Disciplines: Simulation foundations, methods and applications*. Springer International Publishing. DOI 10.1007/978-3-319-61264-5\_11
- Frydenlund, Erika** and David C. Earnest. (2015) "Harnessing the Knowledge of the Masses: Citizen Sensor Networks, Violence and Public Safety in Mugunga." In Emilian Kavalski, ed. *World Politics at the Edge of Chaos: Reflections on Complexity and Global Life*. State University of New York Press. ISBN-13: 978-1-4384-5607-2
- Dickerson, Betty and **Erika Frydenlund**. (2013) "Examining Marriage Immigration to the United States." In Kazuo Nakajima, Jhonsu Yoon, and Rie Kondo (eds.) *International Comparative Studies on Women Marriage Immigrants and Their Families (グローバル時代における結婚移住女性とその家族の国際比較研究)*. Gakujutsu Publishers. ISBN-10: 4284103849

## Technical Reports

- Padilla, Jose J. and **Erika Frydenlund**. (2023) "The Future of Modeling and Simulation." NATO OPEN Publications 8(5). ISSN 2957-7160 (Online), 2957-7799 (Print). [https://issuu.com/spp\\_plp/docs/the\\_future\\_of\\_modeling\\_and\\_simulation?fr=xPf96ChQ](https://issuu.com/spp_plp/docs/the_future_of_modeling_and_simulation?fr=xPf96ChQ)
- Jayanetti, Himarsha R.\*, **Erika Frydenlund**, and Michele C. Weigle. (2023). "Exploring Xenophobic Events through GDELT Data Analysis." arXiv preprint. <https://arxiv.org/abs/2305.01708>

## Non-Peer-Reviewed Articles

- Frydenlund, Erika**, Hanne Haaland, Jose J. Padilla, & Hege Wallevik (alphabetical). (2024). Editorial: Citizen Initiatives for Global Solidarity (CIGS) in disaster and humanitarian response [Editorial]. *Frontiers in Human Dynamics*, 6. <https://doi.org/10.3389/fhumd.2024.1508123>



**Frydenlund, Erika**, Fred Bidandi, and Jennifer N. Fish (2016). "Resource Access Challenges for Refugees and Migrants." *BUWA! Journal on African Women's Experiences*. Issue 6. <http://www.osisa.org/buwa/womens-rights/regional/buwa-issue-6-moving-stories>

Collins, Andrew and **Erika Frydenlund**. (2014). "Academic revenue management and quantitative worship." *Journal of Revenue and Pricing Management* 1(7).

## MEDIA & OTHER OUTREACH

*Storymodelers.org* [VMASC Lab Website] with live fieldnoting and project updates on Twitter, Instagram, and Facebook (@storymodelers)

McConnell, Sarah (host). (2023, November 24). Erika Frydenlund interview in episode: "Seeking Refuge: Caring for Newcomers" segment. In *With Good Reason* [radio show/podcast]. Virginia Humanities. <https://www.withgoodreasonradio.org/episode/seeking-refuge/>

Cleveland, Lydia\*, Alexandra P Leader, and **Erika Frydenlund** (June 8, 2023). "Title 42 didn't result in a surge of migration, after all – but border communities are still facing record-breaking migration." *The Conversation US*. Retrieved from: <https://theconversation.com/title-42-didnt-result-in-a-surge-of-migration-after-all-but-border-communities-are-still-facing-record-breaking-migration-205907>

Padilla, Jose J. and Erika Frydenlund (March 2022). "The Ukrainian refugee crisis could last years – but host communities might not be prepared." *The Conversation US*. Retrieved from: <https://theconversation.com/the-ukrainian-refugee-crisis-could-last-years-but-host-communities-might-not-be-prepared-178482>

Frydenlund, Erika (May 24, 2021). "Donors are cutting food aid for refugees in Rwanda. That's devastating for people unable to work." *The Monkey Cage blog on The Washington Post*. Retrieved from: <https://www.washingtonpost.com/politics/2021/05/24/donors-are-cutting-food-aid-refugees-rwanda-thats-devastating-people-unable-work/>

Frydenlund, Erika, Jose J. Padilla, & Katherine Palacio (April 2021). "Colombia gives nearly 1 million Venezuelan migrants legal status and right to work." *The Conversation US*. Retrieved from: <https://theconversation.com/colombia-gives-nearly-1-million-venezuelan-migrants-legal-status-and-right-to-work-155448>

Padilla, Jose, Erika Frydenlund, Katherine Palacio (March 2021). "Colombia is letting hundreds of thousands of Venezuelans stay. What can other countries learn?" *The Monkey Cage blog on The Washington Post*. Retrieved from: <https://www.washingtonpost.com/politics/2021/03/11/columbia-is-letting-hundreds-thousands-venezuelans-stay-what-can-other-countries-learn/>

Lewis, Cathy (Host). (2019, October 30). Erika Frydenlund and Lee Slater interviewed in episode: "Syrian Refugees / End of Life Ethics / Del. Michael Mullin." In *Hearsay with Kathy Lewis*. WHRO Public Media. <https://mediaplayer.whro.org/program/hearsay/e/hearsay-wednesday-october-30th-2019>

Huddle, Sarah. (October 2019). "ODU Researchers to Study Host Regions' Ability to Manage an Influx of Displaced Populations." *News @ ODU*. Retrieved from: [https://www.odu.edu/news/2019/10/minerva\\_grant#.XhS4HPVKhaQ](https://www.odu.edu/news/2019/10/minerva_grant#.XhS4HPVKhaQ)

Frydenlund, Erika and Luz Diaz\*. (2018, June 8). "This is Moria..." [Guest blog post]. *The Migrationist*. Retrieved from: <https://themigrationist.net/2018/06/08/this-is-moria/>

Frydenlund, Erika (2017, July 4). "Why does the media keep showing those same pictures?" A Greek host community's ongoing struggle [Guest blog post]. *The Migrationist*. Retrieved from: <https://themigrationist.net/2017/07/04/why-does-the-media-keep-showing-those-same-pictures-a-greek-host-communitys-ongoing-struggle/>

O'Hallarn, Brendan. (June 2017). "VMASC Researchers develop groundbreaking simulation showing how migration process batters refugees." *News @ ODU*. Retrieved from: [https://www.odu.edu/news/2017/6/refugee\\_model](https://www.odu.edu/news/2017/6/refugee_model)

*Decoding Lesbos* [Documentary]. <https://www.decodinglesvos.org/>

## POLICY EXPERIENCE

### **NATO Partnership for Peace Consortium (PfPC)**

*Co-Chair, Quality Assurance Working Group*

2025–present

Co-lead NATO-affiliated assessments of defense education quality and impact through the PfPC's Defense Education Enhancement Program (DEEP).

### **US Army Human Terrain Systems, Reachback Research Center IDS International, Newport News, VA**

*Senior Socio-Cultural Analyst*

2012-2013

Used open-source, unclassified, and classified material to produce timely, relevant cultural knowledge products to support deployed operational teams. Developed in-depth ethnographic material and socio-cultural analysis to provide a knowledge base for selected areas of interest.

### **US Joint Staff Deputy Directorate J7 for Joint & Coalition Warfighting, Executive Action Group, Northrop Grumman Technical Services, Suffolk, VA**

*Research and Policy Analyst*

2011-2012

Provided original research, analysis, and publications to engage the military and government community; researched, produced, and distributed diverse products for project planning, agendas, speeches/talking points, information papers, fact sheets, brochures, special publications, briefs, and formal staffing packages.

### **Northrop Grumman Technical Services, Hampton Roads, Virginia**

*Lead Strategic Engagement Specialist*

2008-2011

Supervised outreach strategies for military and government civilians to promote JKnIFE resources that provide U.S. and Coalition troops in the field and in training with information and intelligence to detect and prevent roadside bomb attacks on soldiers in Afghanistan and Iraq; hosted distinguished military and government visitors; represented JKnIFE at military conferences and meetings.

## PROFESSIONAL DEVELOPMENT & CONTINUING EDUCATION

- *Certificate Program in Applied Generative AI*, Johns Hopkins University Whiting School of Engineering, in collaboration with Great Learning (Online), **2025**  
Focus on prompt engineering, model architectures (e.g., encoder/decoder models), practical AI tools, and applied use cases in research and industry.
- *Executive Coaching Program*, **March 2024 – April 2025**  
One-on-one coaching focused on leadership development, team communication, strategic decision-making, and time management for research leadership.

## SERVICE TO THE UNIVERSITY

- Ad Hoc Faculty Senate Committee, ODU, 2024-present
- Treasurer, University Women's Caucus, 2023-present
- Policy Advisement Committee Member, Office of Enterprise Research Innovation
  - Mentorship Program Development, 2023-2024
  - Policy for OERI Principal Investigatory Eligibility, 2023
  - Policy for OERI Research Faculty Evaluation, 2023-2024
- Hiring Committee Member, Office of Enterprise Research and Innovation
  - Administrative Professional, 2024-2025
  - Research Faculty Member, 2024
  - IT Staff, 2023

## **EDITORIAL & SERVICE TO THE DISCIPLINE**

- Associate Editor, *SIMULATION: Transactions of the Society for Modeling and Simulation*, 2021–present
- Funding Reviewer: US Department of Defense, NSF (CMMI), Wellcome Trust
- External Hiring Committee Member: University of Agder (2023)
- Conference Organizing: ANSS, SwarmFest, SpringSim

## **SELECTED INVITED TALKS**

*Presented 25+ papers and roundtables at national and international conferences, including ISA, IASFM, CARFMS, and ARNOVA.*

- National Academies of Sciences – *Workshop on Forced Migration Research* (2019)
- NAVSCIATTS (SOCOM) – *Refugee Host Communities & Migration Trends* (2022–2025)
- Foreign Policy Association – *Climate Migration, Changing Demographics* (multiple years)
- Lesvos Dialogues – *Humanitarian Citizenship & Host Community Response* (2017)

## **MEMBERSHIPS**

International Studies Association; International Association for the Study of Forced Migration (IASFM); Society for Modeling and Simulation International; TCSIM/ IEEE Computer Society; Symphonicity Symphony Orchestra of Virginia Beach