Dr. Evan J. Pineda is an Aerospace Research Engineer in the Multiscale and Multiphysics Branch, Materials and Structures Division at the NASA Glenn Research Center since 2012. Dr. Pineda's primary research interest is multiscale, progressive damage modeling of composite structures. He is currently one of the lead developers of NASA's ImMAC multiscale software suite as part of NASA's Advanced Composites Project (ACP) and Transformational Tools and Technologies (TTT) programs. Dr. Pineda is also a member of the damage tolerance and fracture control team for the Space Launch Systems (SLS) payload fairing structure (PLF) and the universal stage adapter (USA). Dr. Pineda's other research interests include nanomaterials, process modeling, lightning strike protection, impact, materials in extreme environments, and integrated computational materials engineering (ICME). Dr. Pineda was recently awarded the DEStech Young Composites Researcher Award by the American Society for Composites in 2015. Currently, Dr. Pineda is working at RWTH Aachen University, Germany as part of an Alexander von Humboldt Fellowship.

Key Publications:

1. Pineda, E.J., Bednarcyk, B.A., Arnold, S.M., Waas, A.M. (2013). Mesh objective progressive failure of a unidirectional fiber-reinforced composite using the method of cells. *International Journal of Solids and Structures*, 50(9), 1203-1216.

2. Pineda, E.J., Waas, A.M. (2013). Mesh objective implementation of a thermodynamically-based work potential theory for modeling progressive damage and failure in fiber-reinforced laminates. *International Journal of Fracture*, 183, 93-122.

3. Pineda, E.J., Bednarcyk, B.A., Waas, A. M., Arnold, S.M. (2013). On multiscale modeling using the generalized method of cells: preserving energy dissipation across disparate length scales. *CMC: Computers, Materials & Continua*, 35(2), 119-154.

4. Hadden, C.M., Klimek-McDonald, D.R., Pineda, E.J., King, J.A., Reichanadter, A. M., Miskioglu, I., Gowtham, S., Odegard, G.M. (2015). Mechanical properties of graphene nanoplatelet/carbon fiber/epoxy hybrid composites: Multiscale modeling and experiments. Carbon, 95, 100-112.

5. Pineda, E. J., Bednarcyk, B. A., Arnold, S. M. (2016). Validated progressive damage analysis of simple polymer matrix composite laminates exhibiting matrix microdamage: Comparing macromechanics and micromechanics. *Composites Science and Technology*, 133, 184-191.