

EDUCATION	<div>Department of Aerospace Engineering and Applied Mechanics, Tongji University Shanghai, China 2024 - 2028 (<i>expected</i>) D.<i>Eng. in Mechanics</i><ul style="list-style-type: none">• Advisor: Prof. Ying Zhao• Research area: Li-on Batteries</div> <div>Department of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics Nanjing, China 2021 - 2024 M.<i>Eng. in Mechanics</i><ul style="list-style-type: none">• Advisor: Prof. Huiyu Sun• Research area: Shape memory polymer composites</div> <div>Department of Mechanical Engineering, The National Technological Institute of Mexico Yucatan, Mexico 2014 - 2019 B.<i>Eng. in Mechanical Engineering</i><ul style="list-style-type: none">• Advisor: Prof. Pedro J. Herrera-Franco</div>
PUBLICATIONS	<div><div>1. Hao Duan, Jianping Gu, Huiyu Sun, Hao Zeng, Jesus A. Rodriguez-Morales. A thermodynamic constitutive model based on uncoupled physical mechanisms for polymer-based shape memory composites and its application in 4D printing. <i>Applied Mathematical Modelling</i> (Under review)</div><div>2. Jesus A. Rodriguez-Morales, Chentong Gao, Huiyu Sun. Tensile strength prediction of fiber-reinforced polymer composites through layered interphase and chemical bonding: A semi-empirical micromechanical model. <i>European Journal of Mechanics A/Solids</i> (10.1016/j.euromechsol.2024.105533)</div><div>3. Hao Duan, Huiyu Sun, Jesus A. Rodriguez-Morales, Xinyuan Bai. Insight into the “synergistic-relaxation effects” in amorphous polymer: Thermodynamic modeling, multiphysics simulation and application in 4D printing. <i>Polymer</i>. (10.1016/j.polymer.2024.127786)</div><div>4. Jesus A. Rodriguez-Morales, Hao Duan, Jianping Gu, Hao Zeng, Huiyu Sun. Insight into constitutive theories of 4D printed polymer materials: A review. <i>Smart Materials and Structures</i>. (10.1088/1361-665X/ad523c)</div><div>5. Jesus A. Rodriguez-Morales, Aaron Rivas-Menchi, Alex Valadez-Gonzales, Pedro Herrera-Franco. Interfacial modification of a polymer composite material based on short carbon fibers reinforced with carbon nanotubes. <i>Materials Today Communications</i>. (Submitted)</div></div>
AWARDS AND HONORS	<div><div><ul style="list-style-type: none">• Shanghai Government Scholarship (A), Tongji University• Best Presentation, “Zhi-Hong” International Summer School at SJTU• Chinese Government Scholarship, Ministry of Science and Technology• FUNED-Santander Fellowship, FUNED</div><div><div>2024.09</div><div>2022.06</div><div>2021.09</div><div>2019.05</div></div></div>
SKILLS	<div>Languages: Spanish, English.</div> <div>Programming: Python, MATLAB.</div>

ACADEMIC
SERVICES

Reviewer for: *Materials Research Express,*
Engineering Research Express,
Physica Scripta.