

## G. Michael Lavigne

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CONTACT INFORMATION	North Carolina State University Department of Mathematics SAS Hall, 2311 Stinson Dr, Raleigh, NC 27607 USA	(985)-502-3371 gmlavign@ncsu.edu
RESEARCH INTERESTS	Dynamical systems, Infectious Disease Modeling, Spatial Dynamics of Viral Infection, Cellular Automata, Agent Based Models, Equation Learning, Machine Learning.	
EDUCATION	<b>Department of Mathematics, North Carolina State University</b> Ph.D. Candidate, Applied Mathematics (expected May 2020) <ul style="list-style-type: none"><li>• Advisor: Kevin Flores</li></ul> M.S. in Applied Mathematics, December 2017  <b>Tulane University</b> B.S. in Mathematics, May 2015 <ul style="list-style-type: none"><li>• Suma Cum Laude</li><li>• Terry C. Lawson Prize for mathematics capstone work</li></ul> B.A. in Spanish, May 2015	
CONFERENCE TALKS	<i>Impact of IFN Response of Spatial Dynamics of Viral Infection</i> , SIAM Conference on Applications of Dynamical Systems, oral presentation; Snowbird, UT. (May 2017) <i>Spatial Modeling of in-vivo viral infection with Interferon Response</i> , SIAM Southeast Atlantic Section, oral presentation; Chapel Hill, NC. (February 2018) <i>Non-mechanistic Learning of PDEs from Spatial Biological Data</i> , BAMM!, oral presentation; Richmond, VA. (May 2019)	
OTHER TALKS AND ACTIVITIES	<i>Turing Patterns in Biological Morphogenesis</i> , SynTheSys Lunch Talks, oral presentation, NC State University. (January 2017) DARPA INTERCEPT Kick-off Meeting, Arlington, VA (March 2017) DARPA INTERCEPT Review Meeting, San Francisco, SF (October 2017) <i>Spatial Modeling of in-vivo viral infection with Interferon Response</i> , BAMM!, poster presentation; Richmond, VA. (May 2018) <i>Non-mechanistic Learning of PDEs from Spatial Biological Data</i> , SAMSI PMED/MUMS Joint Meeting, oral presentation; Raleigh, NC. (May 2018)	
TEACHING EXPERIENCE	Fall 2016	Teaching Assistant, Calculus I
	Fall 2018	Instructor, Calculus III
	Spring 2019	Instructor, Calculus II
	Summer 2019	Instructor, Calculus III
HONORS AND AWARDS	2016-2018	RTG Fellowship
	2015-2016	Provost Fellowship
	2011-2015	Dean's Honor Scholarship Tulane University
	2011-2015	National Merit Scholar

GRADUATE  
COURSEWORK

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|---|---|
| <input type="checkbox"/> Functional Analysis            | <input type="checkbox"/> Intro. Modeling          |
| <input type="checkbox"/> Matrix Theory                  | <input type="checkbox"/> Numerical Analysis       |
| <input type="checkbox"/> Dynamical Systems              | <input type="checkbox"/> PDE Modeling for Biology |
| <input type="checkbox"/> Control Theory                 | <input type="checkbox"/> Complex Variables        |
| <input type="checkbox"/> Partial Differential Equations | <input type="checkbox"/> Machine Learning         |

RELEVANT  
SKILLS

Computer Skills: Proficiency with MATLAB, Maple, python, L<sup>A</sup>T<sub>E</sub>X.  
Languages: English, Spanish