

**Ryan Nikin-Beers**  
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<i>Education</i>	<p><b>Ph.D. Mathematics</b> <span style="float: right;"><b>May 2018</b></span>  <i>Virginia Polytechnic Institute and State University, Blacksburg, VA</i></p> <ul style="list-style-type: none"> <li>• Thesis Title: “Immunoepidemiological modeling of dengue viral infection.”</li> <li>• Advisor: Dr. Stanca Ciupe</li> </ul> <p><b>M.S. Mathematics</b> <span style="float: right;"><b>May 2014</b></span>  <i>Virginia Polytechnic Institute and State University, Blacksburg, VA</i></p> <ul style="list-style-type: none"> <li>• Thesis Title: “Mathematical modeling of dengue viral infection.”</li> <li>• Advisor: Dr. Stanca Ciupe</li> </ul> <p><b>B.S. Mathematics</b> <span style="float: right;"><b>December 2011</b></span>  <i>Winthrop University, Rock Hill, SC</i></p>
<i>Employment</i>	<p><b>Visiting Assistant Professor</b> <span style="float: right;"><b>August 2018-Present</b></span>  <i>University of Florida, Gainesville, FL</i>          Instructor of record for three semesters; collaborated with Dr. Libin Rong on immunological and epidemiological modeling</p> <p><b>Graduate Teaching Assistant</b> <span style="float: right;"><b>July 2014-May 2018</b></span>  <i>Virginia Polytechnic Institute and State University, Blacksburg, VA</i>          Instructor of record for twelve semesters, which included teaching, grading, and creating lectures, homework, and tests</p> <p><b>Graduate Research Assistant</b> <span style="float: right;"><b>June 2013-May 2014</b></span>  <i>Virginia Polytechnic Institute and State University, Blacksburg, VA</i>          Collaborated with Dr. Stanca Ciupe on developing, analyzing, simulating, and parameterizing a within-host mathematical model of dengue viral infection</p> <p><b>Graduate Teaching Assistant</b> <span style="float: right;"><b>August 2012-May 2013</b></span>  <i>Virginia Polytechnic Institute and State University, Blacksburg, VA</i>          Tutored students in pre-calculus, differential calculus, geometry, and linear algebra</p>
<i>Research Interests</i>	Mathematical modeling; mathematical biology; dengue viral infection; ordinary differential equations; partial differential equations
<i>Programming Skills</i>	<p><b>Proficient:</b> Matlab, Mathematica, C++, LaTeX</p> <p><b>Capable:</b> R, C, SAS</p>
<i>Society Memberships</i>	Society of Mathematical Biology American Mathematical Society
<i>Publications</i>	<p><b>Peer-Reviewed</b></p> <p>5. L Childs, F El Moustaid, Z Gajewski, S Kadelka, R Nikin-Beers, J Smith Jr, M Walker, L Johnson. Linked within-host and between-host models and data for infectious diseases: A systematic review. <i>PeerJ</i>, 7:e7057, 2019.</p> <p>4. R Nikin-Beers, J Blackwood, L Childs, and SM Ciupe. Unraveling within-host signatures of dengue infection at the population level. <i>J Theor Biol</i>, 446: 79-86, 2018.</p>

3. N Dorratoltaj, R Nikin-Beers, SM Ciupe, S Eubank, and K Abbas. Multi-scale immunoepidemiological modeling of within-host and between-host HIV dynamics: systematic review of mathematical models. *PeerJ*, 5:e3877, 2017.
2. R Nikin-Beers and SM Ciupe. Modeling original antigenic sin in dengue viral infection. *Math Med Biol*, 34:dx002, 2017.
1. R Nikin-Beers and SM Ciupe. The role of antibody in enhancing dengue virus infection. *Math Biosci*, 263:83-92, 2015.

### Theses

2. R Nikin-Beers. Immunoepidemiological modeling of dengue viral infection. *Ph.D. Thesis*, Virginia Polytechnic Institute and State University, May 2018.
1. R Nikin-Beers. Mathematical modeling of dengue viral infection. *M.S. Thesis*, Virginia Polytechnic Institute and State University, May 2014.

### *Presentations*

### Contributed Talks

10. Computational and Mathematical Population Dynamics 5, Fort Lauderdale, FL. May 2019.
9. University of Florida Department of Mathematics Mathematical Biology Seminar, Gainesville, FL. September 2018.
8. SIAM Southeastern Atlantic Sectional Conference, Chapel Hill, NC. March 2018.
7. Virginia Tech Department of Mathematics Mathematical Biology Seminar, Blacksburg, VA. October 2017.
6. Annual Meeting for the Society of Mathematical Biology, Salt Lake City, UT. July 2017.
5. Biology and Medicine through Mathematics Conference, Richmond, VA. May 2017.
4. Virginia Tech Department of Mathematics Mathematical Biology Seminar, Blacksburg VA. February 2017.
3. Virginia Tech Department of Population Health Sciences Public Health Seminar, Blacksburg, VA. January 2017.
2. Southeastern-Atlantic Regional Conference on Differential Equations, Greensboro, NC. October 2015.
1. Virginia Tech Department of Mathematics SIAM Seminar, Blacksburg, VA. October 2014.

### Posters

2. The Ninth q-bio Conference, Blacksburg, VA. August 2015.
1. Annual Meeting for the Society of Mathematical Biology, Atlanta, GA. June 2015.

### *Teaching Experience*

### Instructor of Record

*University of Florida, Gainesville, FL*

- Differential Equations (Summer 2019)
- Calculus II with Business Applications (Fall 2018, Spring 2019, Fall 2019)

### Instructor of Record

*Virginia Polytechnic Institute and State University, Blacksburg, VA*

- Elementary Linear Algebra (Summer 2017)
- Calculus II for the Life Sciences (Summer 2015, Summer 2016)
- Calculus II with Engineering Applications (Spring 2015, Spring 2016, Spring 2017, Fall 2017)
- Calculus I with Engineering Applications (Fall 2014, Fall 2015, Fall 2016)
- Calculus I with Business Applications (Summer 2014)