**Brandy L. Rapatski Curriculum Vitae**

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**Education**

* PhD, Applied Mathematics and Scientific Computation, University of Maryland, College Park, December 2004, Advisors: James A. Yorke and Frederick Suppe
* M.S., Applied Mathematics, May 1999, New Jersey Institute of Technology
* B.S. with honors in Applied Mathematics, May 1998, New Jersey Institute of Technology

**Research Interests**

* Mathematical Epidemiology, specifically Mathematical Modeling of Infectious Diseases.

**Publications**

* Rapatski BL, Tolosa, J, *The San Francisco MSM Epidemic: A Retrospective Analysis*, Mathematics, **3**, 1083-1094 (2015).
* Rapatski BL, Tolosa, J, [*Modeling and Analysis of the San Francisco City Clinic Cohort (SFCCC) HIV-Epidemic Including Treatment*](http://www.aimsciences.org/oes/ar/arPpDisplay.jsp?qry=5b43023f99d05ca5120090f1162f7b50), Mathematical Biosciences and Engineering, **11**, 599-619 (2014).
* Rapatski BL, Yorke, JA, *Modeling HIV Outbreaks: The Male to Female Prevalence Ration in the Core Population*, Mathematical Biosciences and Engineering, **6**, 135-143 (2009).
* Rapatski BL, Suppe F, Yorke JA*, Reconciling different infectivity estimates for HIV-1,* JAIDS 43, 253-256 (2006)**.**
* Rapatski BL, Klepac P, Dueck S, Liu M, Weiss LI, *Mathematical Epidemiology of HIV/AIDS in Cuba During the Period 1986-2000*, Mathematical Biosciences and Engineering **3**, 545-556 (2006).
* Rapatski BL, Suppe F, Yorke JA, *HIV Epidemics Driven by Late Disease-Stage Transmission* Journal of Acquired Immunodeficiency Disease Syndromes (JAIDS) **38**, 241-253 (2005).

**Teaching Experience**

* Associate Professor of Mathematics, RSCNJ, Fall 2010-present
* Assistant Professor of Mathematics, RSCNJ, Fall 2005-2010.
* Visiting Assistant Professor of Mathematics, College of William and Mary, Spring 2005.
* Graduate Teaching Assistant, University of Maryland Mathematics Department, 1999-2004.
* Research Assistant, J.A. Yorke, Summer 2004 & Summer 2003.
* Bridge Summer School Calculus II teacher, University of Maryland, Summer 2003.
* Graduate Teaching Assistant, New Jersey Institute of Technology Math Dept., 1998-1999.

**Honors and Awards**

* CDC Funds 2016
* RSCNJ R&PD Summer 2006, 2007, 2008, 2009, 2010, 2012 & 2014.
* RSCNJ R&PD Mini Grant 2010-2011 & 2011-2012
* RSCNJ Division-Based Support Funds for Junior Faculty 2005, 2006, 2007 & 2008.
* Who’s Who in America 2009
* VIGRE Semester Dissertation Fellowship, Fall 2004

**Professional Training**

* Distinguished Fellowship Advisor for Dennis Pham 2019, Joshua Hillman 2016
* Research Advisor, Dennis Phan 2018-19, Joshua Hillman Summer 2015-16, Jared Bland Summer 2014, Arielle Gaudiello, Summer 2012 – Spring 2013
* QUAD Committee, Fall 2010 - present
* Math Contest in Modeling Advisor, Spring 2007–2019
* Math Olympics, Spring 2011-2019
* QUAD Summer School, Summer 2007, 2010-2014, 2018
* Writing Summer School Summer 2011
* Council on Undergraduate Research participant in “Beginning a Research Program in the Natural Sciences at a Predominantly Undergraduate Research Institution,” November 2008
* Computational Science (CPLS) Faculty Search Committee, Spring 2008 & 2009
* CPLS Curriculum Committee, Spring 2008 - present
* NSF S-STEM grant Proposal Committee, Spring 2008 - present
* CPLS Associated Faculty, Fall 2007 – present
* Modeling and Simulation Committee, Spring 2008-2009
* CLA Summer Program, Summer 2008
* Jersey Shore Science Fair Judge, Spring 2008
* NIH Bridges to the Baccalaureate grant Program Proposal Committee, Fall 2007
* Grading and Standing Committee Member, 2006-2007
* NAMS biannual Student Research Poster day presentation Judge April 2006

**Talks and Presentations**

* Math Seminar, RSCNJ, Spring 2018, *Math Magician*
* Math Seminar, RSCNJ, Fall 2013, *Ninja Math 2*
* Math Seminar, RSCNJ, Fall 2012, *Ninja Math 1*
* Scholarship Day, RSCNJ, March 2012, *A model for the study of HIV*
* Math Seminar, RSCNJ, October 2011, *A model for the study of the HIV infection (I)*
* Math Seminar, RSCNJ, November 2009, *Modeling Infectious Diseases*
* Math Seminar, Bryn Mawr, November 2009, *Mathematical Modeling of the HIV Epidemic*
* SIAM Conference, Park City, UT, May 2009, *Universal Testing is the Best HIV Prevention Strategy*.
* AMS National Joint Math Meetings session on Difference Equations, Washington, D.C., January 2009, *Modeling HIV Outbreaks: The Female to Male Prevalence Ratio in the Core Population.*
* Math Seminar, RSCNJ, November 2008, *Using Mathematical Modeling to Prevent HIV.*
* WCNA, Orlando, Florida, July 2008, *Public Screening is the Best HIV Prevention Strategy.*
* Scholarship Day, RSCNJ, March 2008, *Best Prevention Strategies for Slowing HIV/AIDS.*
* Math Seminar, RSCNJ, December 2007, *A New Version of E=MC2.*
* Math Seminar, RSCNJ, April 2007, *HIV Modeling: My Journey Toward Saving Thousands of Lives*
* Center for Disease Control, Atlanta, Georgia, April 2007, *The Infectivity of HIV.*
* Panel Discussion, University of Maryland, April 2006 & 2007, *Life After Graduate School.*
* Scholarship Day, RSCNJ, March 2007, *Determining the Probability of Transmitting HIV/AIDS*
* Math Seminar, Richard Stockton College of NJ, October 2006, *Modeling Infectious Diseases*.
* SIAM Annual Meeting, Boston, Massachusetts, July 2006, *HIV in Cuba 1986-2000.*
* Talk for Chancellor, University of Maryland, June 2006, *When is HIV Most infectious???*
* Math Seminar, RSCNJ, September 2005, *Using Math to Determine the Infectiousness of HIV/AIDS*.
* MITACS/MSRI/PIMS, BIRS, August 2005, *The Trajectory of HIV in Africa and India*.
* Conference on Differential and Difference Equation, FIT, August 2005, *The Tip of the HIV-1 Iceberg*.
* SIAM Meeting, New Orleans, Louisiana, July 2005, *Determining the Virulence of HIV-1 Epidemics.*
* College of William and Mary, March 2005, *The Non-Linear Transmission Dynamics of HIV/AIDS*.
* INFORMS, MD, January 2005, *Using Modeling to Determine the Infectiousness of HIV.*
* Math Colloquium, Howard University, September 2004, *Using Mathematical Modeling to Determine the Infectiousness of HIV* (with J.A. Yorke)*.*
* 9th ICDEA, USC, August 2004, *Mathematical Modeling to Determine the Infectiousness of HIV*
* MITACS/MSRI/PIMS Summer School on Infectious Diseases, BIRS, June 2004, *HIV/AIDS in Cuba 1986-2000, Interferences on Transmission Dynamics Drawn from Mathematics and Epidemiology.*
* STD Prevention Conference, PA, March 2004, *Modeling the Population Dynamics of HIV/AIDS.*
* NIST, Columbia, MD, March 2004, *HIV Epidemics Driven By Late Disease-Stage Transmission.*
* AMS National Joint Mathematics Meetings, Phoenix, January 2004, *HIV Epidemics Driven By Late Disease-Stage Transmission.*
* Dynamics Days, University of NC, January 2004, *Modeling the Population Dynamics of HIV/AIDS.*

**Professional Societies and Organizations**

Association for Women in Mathematics, American Mathematical Society, Society for Industrial and Applied Mathematics, Mathematics Association of America, Pi Mu Epsilon National Honorary Mathematics Society, Sigma Psi Kappa Sorority Alumnae President

**Personal Achievements**

Black Belt in Tae Kwon Do (received July 2014)

NJ State Marathon (4:06:29, April 2015)

NYC Marathon (4:11:58, April 2017)