DANIEL T. WOOD
Statistical Center for HIV/AIDS Research and Prevention,
Vaccine and Infectious Disease Division,
Fred Hutchinson Cancer Research Center
1100 Fairview Ave. N., Seattle, WA 98109 USA
Office: 206.667.4131, Mobile: 817.291.1233, Email: dwood@fredhutch.org

Curriculum Vitae

Education

The University of Texas at Arlington (UTA), Arlington, TX

Ph.D., Mathematics, August 2015

- Thesis Topic: *Advancements and applications of nonstandard finite difference methods*
- Adviser: Professor Hristo V. Kojouharov

B.A., Mathematics (Magna cum Laude), May 2012

Academic Positions

1/16–present: **Postdoctoral Research Fellow**, Statistical Center for HIV/AIDS Research and Prevention (SCHARP), Vaccine & Infectious Disease Division, Fred Hutchinson Cancer Research Center

8/15–12/15: **Postdoctoral Fellow**, Department of Mathematics, University of Texas at Arlington

8/14–8/15: **Graduate Teaching Assistant**, Department of Mathematics, University of Texas at Arlington

6/14–12/14: **Undergraduate Training in Theoretical Ecology Research (UTTER) Student Mentor**, Department of Mathematics, University of Texas at Arlington

7/13–5/14: **NSF GK-12 MAVS Graduate Fellow**, Department of Mathematics, University of Texas at Arlington

7/12–5/13: **Graduate Teaching Assistant**, Department of Mathematics, University of Texas at Arlington

Honors and Awards

- **Outstanding Graduate Research Award**, University of Texas at Arlington, 2015
- **Mathematics Academic Excellence Scholarship**, University of Texas at Arlington, 2015
- **Graduate Assistance in Areas of National Need Fellowship**, University of Texas at Arlington, 2015
- **NSF GK-12 MAVS Graduate Fellowship**, University of Texas at Arlington, 2013–2015

- **GK-12 MAVS Program Excellence Award**, University of Texas at Arlington, 2013–2014
- **Scholarships for Undergraduates to Reach Goals in Education**, University of Texas at Arlington, 2009–2012
- **Outstanding Junior Award** (Mathematics), University of Texas at Arlington, 2011
- **Outstanding French Student Award**, University of Texas at Arlington, 2010

Professional Organizations

- Society for Mathematical Biology, **Member**, 2015–present
- Society for Industrial and Applied Mathematics, **Member**, 2015–present

Teaching Experience

The University of Texas at Arlington, Arlington, TX

8/14–12/15: **Course Instructor**

- MATH 1316-001: Mathematics for Economics and Business Analysis
- MATH 1316-003: Mathematics for Economics and Business Analysis
- MATH 1302: College Algebra
- MATH 1327: Architectural Calculus
- MATH 1315-003: College Algebra for Economics and Business Analysis
- MATH 1315-004: College Algebra for Economics and Business Analysis

1/15–5/15: **Grader**

- MATH 5300: Introduction to Scientific Computing.

6/14–12/14: **UTTER Student Mentor**

- Worked as a mentor to students in the Undergraduate Training in Theoretical Ecology Research (UTTER) Program at the University of Texas at Arlington, assisting in leading the students through undergraduate research in Mathematical Biology.

7/13–5/14: **National Science Foundation GK-12 MAVS Graduate Fellow**

- Taught lessons relating graduate research in Numerical Analysis to sixth grade mathematics at Anderson Elementary in Arlington, TX.

7/12–5/13: **Lab Instructor**

- MATH 1426: Calculus I

Service

- 95th Annual Texas Section Meeting of the Mathematical Association of America (MAA) Calculus Bowl, April 9, 2015
  - Assisted in running the event
- Math Major Day, University of Texas at Arlington, April 8, 2015
  - Panelist, 'Career opportunities for undergraduate students in mathematics' session
- Texas A&M International University (TAMIU) Calculus Bowl, April 3, 2014
  - Assisted in running the event
- GK-12 Elementary School Math Day at the University of Texas at Arlington, March 28, 2014
  - Led students on a campus tour, including a science show, lunch, and a math activity session
- The 2013 Math Camp for Riverside Middle School on the University of Texas at Arlington Campus, March 6, 2013
  - Assisted in hosting 300 eighth grade students
- NSF Analysis Workshop: Active Learning Materials for Critical Thinking in a First Course in Real Analysis, University of Texas at Arlington, January 13–14, 2011
  - Panelist, 'Advice from students to students' session

Referee/Reviewer Work (Journals)

- Mathematical Biosciences and Engineering, Scientific Reports, Communications in Nonlinear Science and Numerical Simulation

Publications

Refereed Publications

[8] Y. Zhao, **D. Wood**, H. Kojouharov, Y. Kuang, D. Dimitrov. 2016. Impact of population recruitment on the HIV epidemics and the effectiveness of HIV prevention interventions. *Bulletin of Mathematical Biology*. 78(10): 2057–2090 (http://dx.doi.org/10.1007/s11538-016-0211-z).

[7] **D. Wood**, H. Kojouharov, D. Dimitrov. 2016. Universal approaches to approximate biological systems with nonstandard finite difference methods. *Mathematics and Computers in Simulation*, Published online: 2 May 2016 (http://dx.doi.org/10.1016/j.matcom.2016.04.007).

[6] **D. Wood**, H. Kojouharov. 2015. A class of nonstandard numerical methods for autonomous dynamical systems. *Applied Mathematics Letters*. 50: 78–82 (http://dx.doi.org/10.1016/j.aml.2015.06.008).

[5] **D. Wood**, D. Dimitrov, H. Kojouharov. 2015. A nonstandard finite difference method for n-dimensional productive-destructive systems. *Journal of Difference Equations and Applications*. 21(3): 240–254 (http://dx.doi.org/10.1080/10236198.2014.997228).

In Preparation

[4] **D. Wood**, M.-C. Boily, K. Mitchell, M. Li, J. Hughes, D. Donnell, L. Bekker, S. Mannheimer, T. Holtz, R. Grant, D. Dimitrov. Predicted effectiveness of daily and non-daily PrEP based on sex & pill taking patterns data from HPTN 067 ADAPT

[3] **D. Wood**, K. Lancaster, M.-C. Boily, K. Powers, D. Donnell, M. Cohen, D. Dimitrov. Inclusion of female sex workers in HIV prevention trials: Can efficacy endpoints be reached more efficiently?

[2] S. de Montigny, B. Mâsse, **D. Wood**, J. Kublin, P. Gilbert, D. Dimitrov. Effectiveness of an HIV vaccine with multi-dose regimen and boosters in South Africa

[1] S. de Montigny, **D. Wood**, B. Mâsse, D. Dimitrov. Importance of demographic processes in mathematical models for evaluating HIV prevention interventions

Conferences and Workshops

Abstracts

[11] C. Selinger, A. Bershteyn, **D. Wood**, P. Gilbert, D. Dimitrov. Population-level Impact of an ALVAC/AIDSVAX Vaccine Augmented with Additional Booster through Targeted Campaigns in South Africa. *HIVR4P 2016 HIV Research for Prevention*, Chicago, IL, 2016

[10] D. Dimitrov, D. Swan, A. Ulrich, **D. Wood**, J. Lama, J. Sanchez, A. Duerr. Projected Effectiveness of a TasP Strategy that Includes Detection of Acute HIV Infections among MSM in Peru. *HIVR4P 2016 HIV Research for Prevention*, Chicago, IL, 2016

[9] D. Dimitrov, **D. Wood**, K. Mitchell, M. Li, J. Hughes, D. Donnell, L. Bekker, S. Mannheimer, T. Holtz, R. Grant, M.-C Boily. Predicted Effectiveness of Daily and non-Daily PrEP based on Sex Coverage Data from HPTN 067 ADAPT Sites in South Africa, Thailand and US. *HIVR4P 2016 HIV Research for Prevention*, Chicago, IL, 2016

[8] S. de Montigny, B. Mâsse, **D. Wood**, P. Gilbert, D. Dimitrov. Assessing the Influence of Vaccine Efficacy Profile and Regimen Adherence on the Projected Effectiveness of the HVTN 702 Vaccine Regimen in South Africa. *HIVR4P 2016 HIV Research for Prevention*, Chicago, IL, 2016

[7] **D. Wood**. A Nonstandard Numerical Scheme for Solving Productive-Destructive Systems. *95th Annual Texas Section Meeting of the Mathematical Association of America*, San Antonio, TX, 2015

[6] **D. Wood**. A Class of Nonstandard Finite Difference Schemes for Autonomous Dynamical Systems. *Fifth Annual SIAM Mid-Atlantic Regional Mathematical Student Conference and Industrial Days*, Fairfax, VA, 2015

[5] **D. Wood**, S. Sutton. Find the Error! *MAA 94th Annual Texas Section Meeting*, Laredo, TX, 2014

Invited Presentations

[4] **D. Wood**. Nonstandard finite difference schemes for general productive-destructive systems. *NSF GK-12 MAVS Program ACES Special Session*, Arlington, TX, 2014

General Participant

[3] *Statistical and Applied Mathematical Sciences Institute (SAMSI) Computational Neuroscience Summer School (CCNS)*, Durham, NC, July 27–31, 2015

[2] *Society for Industrial and Applied Mathematics (SIAM) Conference on the Life Sciences*, Charlotte, NC, August 4–7, 2014

[1] *6th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID)*, Seattle, WA, July 7–23, 2014