

DAMON J.A. TOTH, PH.D

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Academic History

- **Post-Doctoral**—University of Utah, Mathematics (present position)
Mentor: Dr. Fred Adler
- **Graduate**—University of Washington, Applied Mathematics (Ph.D. 2006, M.S. 2003)
Advisor: Dr. Mark Kot
- **Undergraduate**—Princeton University, Operations Research (B.S.E. 1997)

Fellowships, Lectureships & Assistantships

- **University of Utah**—Salt Lake City, UT
 - **Researcher**, Risk Assessment for National Emerging Infectious Diseases Laboratories (05/2009–Present)
 - **NSF Fellow, Research Training Group in Mathematical Biology**, DMS-0354259 (08/2007–Present)
 - **Instructor**, *Introduction to Applied Mathematics II* (01/2009–08/2009)
 - **Instructor**, *Differential Equations & Linear Algebra* (08/2008–12/2008)
 - **Mentor**, Research Experience for Undergraduates (01/2008–04/2008)
 - **Instructor**, *Differential Equations & Linear Algebra* (01/2008–08/2008)
 - **Instructor**, *Calculus II* (08/2007–12/2007)
- **University of Washington**—Seattle, WA
 - **Instructor**, *Applied Linear Algebra and Numerical Analysis* (06/2006–08/2006)
 - **NSF GK-12 Fellow**, DGE-0338322 (09/2005–06/2006, 04/2005–06/2005)
 - **NSF VIGRE Fellow**, DMS-0354131 (06/2005–08/2005, 09/2004–03/2005)
 - **NSF VIGRE Fellow**, DMS-9810726 (01/2003–08/2004)
 - **Teaching Assistant**, *Vector Calculus and Complex Variables* (09/2003–12/2003)
 - **Tutor**, Applied Mathematics Preliminary Exams (09/2003–12/2003)
- **Kyushu University**—Fukuoka, Japan (*hosted by Dr. Yoh Iwasa*)
 - **NSF East Asia Summer Institutes Fellow**, Biology (06/2003–08/2003)
- **University of Washington**—Seattle, WA
 - **Teaching Assistant**, *Continuous Mathematical Modeling* (04/2003–06/2003)
 - **Teaching Assistant**, *Calculus I for Biologists* (01/2003–03/2003)
 - **Tutor**, Math Study Center (01/2003–03/2003)
 - **Teaching Assistant**, *Vector Calculus and Complex Variables* (09/2002–12/2002)
 - **Research Assistant**, Biological Invasions Modeling (04/2002–08/2002)

- **Teaching Assistant**, *Calculus II for Biologists* (01/2002–03/2002)
- **Teaching Assistant**, *Calculus II* (09/2001–12/2001)
- **Instructor**, *Beginning Scientific Computing* (06/2001–08/2001)
- **Teaching Assistant**, *Continuous Mathematical Modeling* (04/2001–06/2001)
- **The American School in Switzerland**—Lugano, Switzerland
 - **Teacher**, Pre-Algebra, Geometry, and Laboratory Science (01/2000–06/2000)
- **Ngee Ann Polytechnic, Centre for Computer Studies**—Singapore
 - **Princeton-In-Asia International Fellow** (07/1997–06/1999)
 - **Advisor**, Final-year independent projects (12 students, 1997–1999)
 - **Lecturer**, *Object-Oriented Programming* (01/1999–06/1999)
 - **Module Coordinator & Lecturer**, *Problem Solving and Programming* (07/1998–12/1998)
 - **Lecturer**, *Java Applications Development* (01/1998–06/1998)
 - **Lecturer**, *Java Programming* (07/1997–12/1997)
- **Princeton University**—Princeton, NJ
 - **Coursework Programmer**, *Science and Technology of Decision Making* (06/1996–08/1996)
 - **Teaching Assistant**, *Introduction to Computer Programming* (01/1995–05/1995)

Publications

- D. Toth, Bifurcation Structure of a chemostat model for an age-structured predator and its prey, *Journal of Biological Dynamics* 2(4): 428–448 (2008).
<http://dx.doi.org/10.1080/17513750802360853>
- D. Toth, Strong resonance and chaos in a single-species chemostat model with periodic pulsing of resource, *Chaos, Solitons & Fractals* 38: 55-69 (2008).
<http://dx.doi.org/10.1016/j.chaos.2006.12.001>
- D. Toth and M. Kot, Limit cycles in a chemostat model for a single species with age structure, *Mathematical Biosciences* 202(1): 194–217 (2006).
<http://dx.doi.org/10.1016/j.mbs.2006.03.008>
- D. Toth, *Analysis of Age-Structured Chemostat Models*, Ph.D. thesis, Univ. of Washington (2006).

Activities and Awards

- **Organizer, Medical Math Modeling Interest Group**—University of Utah, 2009-Present
- **Organizer, Summer Research Experience for Undergraduates in Mathematical Biology**—University of Utah, Summer 2010
- **Organizer, Mini-symposium on Mathematical Modeling of Infectious Diseases**—SIAM Conference on Applications of Dynamical Systems, Snowbird, UT (05/2009)
- **Organizer, Math Biology Workshop on Building an Interdisciplinary Career**—University of Utah (05/2009)
- **President, SIAM-UW**—(09/2004–06/2005)
- **Organizer, VIGRE professional development forums**—UW (2005)

- **Organizer, African American Academy Math Fair**—Seattle, WA (02/2005)
- **Panelist, Undergraduate Mathematical Sciences Forum**—UW (10/22/2004)
- **Boeing Award Recipient**—Applied Mathematics, UW (05/2003)
“For excellent academic performance and dedicated service to the department”
- **Graduate Student Representative**—Applied Mathematics, UW (10/2002–10/2003)
- **Boeing Award Recipient**—Applied Mathematics, UW (05/2002)
“For excellent academic performance”

Presentations

- Society for Mathematical Biology Annual Meeting (poster), Vancouver, BC (7/29/2009)
- SIAM Conference on Applications of Dynamical Systems (mini-symposium speaker), Snowbird, Utah (5/20/2009)
- Math Biology Workshop on Building an Interdisciplinary Career (poster), Univ. of Utah (5/15/2009)
- Mathematical Biology Seminar, Univ. of Utah (3/25/2009)
- Mathematics Graduate Colloquium, Univ. of Utah (10/27/2007)
- Mathematical Biology Seminar, Univ. of Utah (03/09/2007)
- Department of Mathematics Seminar, Univ. of Arizona (03/07/2007)
- Seminar in Mathematical Biology, Univ. of Washington (10/10 & 10/12/2006)
- Applied Mathematics Colloquium, Univ. of Washington (10/10/2006)
- Ph.D. Final Exam Presentation, Univ. of Washington (08/14/2006)
- European Conference on Mathematical and Theoretical Biology (poster), Dresden, Germany (07/18–07/22/2005)
- Undergraduate Mathematical Sciences Seminar, Univ. of Washington, October 22, 2004
- Seminar in Mathematical Biology, Univ. of Washington (04/20 & 04/22/2004)
- Retreat on Mathematical Ecology and Evolution, Banff International Research Station, Banff, Canada (03/26/2004)
- SIAM-UW Seminar, Univ. of Washington (01/15/2004)
- Undergraduate Mathematical Sciences Seminar, Univ. of Washington (01/09/2004)
- School of Aquatic and Fishery Sciences Quantitative Seminar, Univ. of Washington (11/08/2003)
- Nara Women’s University Seminar, Nara, Japan (08/12/2003)
- Kyushu University Mathematical Biology Seminar, Fukuoka, Japan (07/08/2003)
- General Exam Presentation, Univ. of Washington (05/16/2003)
- Seminar in Mathematical Biology, Univ. of Washington (04/08/2003)
- Master’s Presentation, Univ. of Washington (03/14/2003)
- Applied Mathematics Graduate Student Seminar, Univ. of Washington (02/28/2003)

Refereeing for Peer-Reviewed Journals

- *Computers and Mathematics with Applications*
- *Mathematical Methods in the Applied Sciences*
- *Mathematics and Computers in Simulation*
- *SIAM Journal on Applied Mathematics*

Professional Society Memberships

- SMB — Society for Mathematical Biology
- SIAM — Society for Industrial and Applied Mathematics
- AMS — American Mathematical Society

References

- **Dr. Mark Kot**—Graduate thesis advisor and teaching reference
kot@amath.washington.edu
- **Dr. Fred Adler**—Post-doctoral research mentor
adler@math.utah.edu
- **Dr. Adi Gundlapalli**—Research collaborator, epidemiology
Adi.Gundlapalli@hsc.utah.edu
- **Dr. James P. Keener**—Post-doctoral fellowship P.I. and mentor
keener@math.utah.edu
- **Dr. Loyce Adams**—Teaching reference (K-12 work)
adams@amath.washington.edu
- **Dr. Ka-Kit Tung**—General reference
tung@amath.washington.edu