BALDVIN EINARSSON

18 Myrick Street
Allston, MA 02134

phone: (+1) 803 257 7474
email: baldvine@gmail.com
web: www.math.ucsb.edu/~baldvine

Education:

2011 Ph.D. in Mathematics, University of Iceland. *Advisors: Professors Björn Birnir (UCSB) and Sven Sigurdsson.*

2007 Teaching Diploma for junior college mathematics (ages 16-20) in Iceland, University of Iceland.

2005 B.S. in Mathematics, University of Iceland. *Major in Mathematics and a minor in Numerical Analysis.*

2001 Junior College Diploma (matriculation exam), Reykjavik Junior College (MR).

Immigration status: Permanent Resident (Green Card holder) as of August 2012.

Professional experience:

January 2014 – Present: Core QA Analyst II at AIR Worldwide. *Interacted with research, software, and product management teams in order to write various test plans to ensure the correctness and quality of the catastrophe models and software. Handled large amounts of data with various languages, including* **R** *and* **SQL**.

August 2011 – December 2013: Postdoc at the Center for Complex and Nonlinear Science at UC Santa Barbara, and Specialist at the Marine Research Institute of Iceland (MRI). *Continued mathematical research and joined a project making the MRI's data available online. Learned ESRI GIS software and* **R** *in order to create new layer data files and publish them as map services.*

October 1 2010 - May 30 2011: Researcher at Universidad Complutense de Madrid, Spain. *Awarded the UCM-EEA Abel Grant to work with Professor Ana Carpio. Designed and programmed a cellular automata model for biofilm growth (see 2012 publication). Implemented 2d (~3500 lines) and 3d (~4700 lines) versions in* **Fortran** *using the NAG library.*

2009-'10: *Tailored a Dynamic Energy Budget (DEB) model to the Icelandic capelin as part of my dissertation research. Simulations and data fitting done in* **Matlab** *(see 2011 publication).*

2007-'09: Junior Researcher at UCSB. G*raduate coursework and research. Utilized and extended a large* **C++** *code (~5000 lines) for a model on the spawning migration of the Icelandic capelin. Collaborated with mathematicians, biologists, and non-scientists (see 2009 publication).*

2004-'05: Junior Researcher at University of Iceland. *Learned* ***Fortran*** *and implemented a model for the spawning migration of the Icelandic capelin (see 2004 publication).*

Skills and other programming projects:

Coursework on algorithms and data structures (using **C++***), and on object-oriented design (using* **Java)**. *Used extensively in projects on biofilms and fish migrations, as described above.*

Created video files (.avi) for the biofilms project (using **Matlab***) and fish migration project (using* **mencoder***).*

Self-taught basics of **HTML**, **CSS**, **Javascript** *and* **XML** *for my personal website; also* **AWK**, **MySQL**, and **Python**.

Excellent communication skills gained from academic collaborations, presenting research in conferences, and teaching.

Professional memberships:

SIAM (since July 2011) and ACM (since August 2013).

Language skills:

Icelandic (native), English (native), Swedish (native), Spanish (conversational), French (conversational).

Teaching experience:

Extensive teaching experience, at UC Santa Barbara, Bridgewater State University, and Reykjavik Junior College, between 2002 and 2013. *Courses taught include elementary statistics, calculus, differential equations, linear algebra, introduction to proofs, and math readiness.*

Selected academic publications:

Rodriguez, D., Einarsson, B., Carpio, A. *Biofilm growth on rugose surfaces*. 2012. Physical Review E, **86**: 061914

Einarsson, B., Birnir, B, and Sigurðsson, S. *A Dynamic Energy Budget (DEB) model for the energy usage and reproduction of the Icelandic capelin (*Mallotus villosus*).* 2011. Journal of Theoretical Biology, **281**: 1-8.

Barbaro, A., Einarsson, B., Birnir, B., Sigurðsson, S., Valdimarsson, H., Pálsson, Ó.K., Sveinbjörnsson, S., and Sigurðsson, Þ. 2009. *Modelling and simulations of the migration of pelagic fish*. ICES Journal of Marine Science, **66**.

Kjartan G. Magnússon, Sven Þ. Sigurðsson and Baldvin Einarsson. 2004. *A discrete and stochastic simulation model for migration of fish with application to capelin in the seas around Iceland*. Science Institute, University of Iceland, Report RH-20-2004. Available online at http://www.math.ucsb.edu/~baldvine