Anton Bobkov

Contact Information

Graduate Student
Department of Mathematics
University of California, Los Angeles
Los Angeles, CA 90095-1555 USA

E-mail:
antongml@gmail.com
bobkov@math.ucla.edu
Website:
www.math.ucla.edu/~bobkov/
Phone: (408)813-6331

Education

University of California, Los Angeles *(graduate)* **Fall 2011 to present**
PhD, Mathematics (in progress)

Advisor: Matthias Aschenbrenner
Research interests: Mathematical logic, model theory, NIP theories, vc-density

University of California, Los Angeles *(undergraduate)* **Graduated Spring 2011**

- *B.S.* in Mathematics, *B.A.* in Physics
- Sherwood Prize
- Departmental Highest Honors in Mathematics, College Honors
- GPA: 3.82 (Magna Cum Laude)
- William Lowell Putnam Mathematics Competition
  - 2008 - score 30
  - 2009 - score 19

Undergraduate Research

Cryptography REU at Northern Kentucky University **Summer 2009**
Implemented a variant of MXL algorithm in computational algebra system MAGMA

Research assistant for Vladimir Vassiliev **2008 - 2011**
I did various numerical simulations in C++ for AGIS gamma-ray telescope. This included forward and inverse kinematics for Stewart platform, ray casting focusing simulations, and laser calibration. I have also worked on network interfacing with Gumstix boards using CORBA as well as installing and configuring a custom linux kernel.

Teaching

Intermediate C++ Programming, Linear Algebra, Calculus

Papers

Bobkov, A. *VC-density for trees*, in preparation

Software Experience

Unix-like systems
I am comfortable working in command line environment, including tasks such as

- installing and managing web-server, repository server, ssh server
- code building, editing, and version control

Languages	C++, C#, bash, Java, PHP, MAGMA
Code management	CMake, Makefile, git, subversion, Visual Studio, Unity3D
Standards	TCP/IP, .NET, CORBA

Independent Projects

For more information and links visit www.math.ucla.edu/~bobkov/projects.html

Burn and Turn **2008 - 2011**

Cross-platform arcade style video game featured on Kotaku and IndieGames. It was coded in C++ and used OpenGL as a backend for graphics. It was created by a team of three people over a course of four years and released on iOS and Android markets.

Self Balancing Robot **Summer 2012**

A vertical self-balancing robot ran by an arduino controller coded in C++. A numerical simulation was used to determine weight distribution. Robot's position is determined by data from an accelerometer and a gyroscope combined through a Kalman filter. Balancing is done with a DC motor using PID controller.

UCLA Graduate Student Wiki **Summer 2014**

Official wiki for graduate math department at UCLA that maintains a database of qualifying exam problems. It is made on top of Semantic Media Wiki using custom extension written in PHP that allows to users to search, filter, and tag the solutions.

Decentralized Online Game **Fall 2014 - Present**

Exploration multiplayer online game that manages players and game data using peer-to-peer connections instead of relying on a central server. It is coded with C# in Unity3D using standard TCP/IP network.