# Matthew An-Hao Tai

Email: mtai@math.upenn.edu
Cell: 617-642-7882
Website: www.math.upenn.edu/~mtai

Department of Mathematics
209 South 33rd Street
Philadelphia, PA, 19104

Citizenship: United States of America

## Objectives

Obtain a full-time position utilizing my mathematical skills and familiarity with statistics and various computer languages

## Summary of Qualifications

- Designed and researched mathematical problems in abstract algebra and differential geometry.
- Designed and utilized computational methods to prove mathematical lemma in my Ph.D. dissertation.
- Created documentation and examples for MATLAB Symbolic Toolbox and MuPAD engine.
- Experience with Python, Java, MATLAB, C++, Maple, Magma, Sage, Mathematica, Excel, Photoshop.
- Gave talks on advanced mathematics at seminars and colloquia.
- Over 9 years experience teaching K12, college, and graduate mathematics courses.
- Co-founded and managed film production company.
- Strong interpersonal and communication skills.

## Experience

**University of Pennsylvania**                                    Philadelphia, PA
  **Teaching Postdoctoral Fellow**                               2014-Present
  Held recitations, graded homework, quizzes, and exams for college and graduate math courses.
  **Graduate Teaching Assistant**                                2010-2014
  Held recitations, graded homework, quizzes, and exams for college and graduate math courses.

**Harvard University**                                           Cambridge, MA
  **Undergraduate Teaching Assistant**                           2006-2009
  Held recitations, graded homework, quizzes, and exams for advanced calculus courses.

**Respectably French! Comedy Troupe**                            Cambridge, MA
  **Co-Founder, Executive Operations Manager**                   2006-2009
  Determined production standards. Planned and managed casting and production teams.

**The MathWorks**                                                Natick, MA
  **Intern**                                                     Summer 2008
  Created documentation and examples for MATLAB Symbolic Toolbox and MuPAD engine.

**Boston-Area Math Circle**                                      Boston, MA
  **Instructor**                                                 2007-2008
  Taught courses in advanced mathematics for K-12 students using active learning methods.

## Education

**University of Pennsylvania**, Philadelphia, PA                 Ph.D in Mathematics, 2014
Dissertation: *Family Algebras and the Isotypic Components of* $\mathfrak{g} \otimes \mathfrak{g}$ Available here

**Harvard University**, Cambridge, MA                            BA in Mathematics, 2009
Senior Thesis: *The Topology of the Energy-Momentum Level Sets for the Lagrange Top*

**References available on request**