### Richard Klevan MA

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June 2, 2019

#### Education

University of California Santa Cruz
 Advanced Graduate Coursework in Mathematics
 San Diego State University
 M.A. Mathematics
 University of California Berkeley
 B.A. Mathematics
 Santa Cruz, USA
 September 2015 - June 2018
 San Diego, USA
 August 2013 - May 2015
 Berkeley, USA
 August 2007 - May 2011

#### Awards& Honours

UC Berkeley Regents and Chancellors Scholarship	1
Cal Alumni Leadership Award	)7
National Merit Scholarship Finalist	)7

### Work Experience

• University of California Santa Cruz
Teaching Assistant and PhD student

Santa Cruz, CA September 2015 - March 2018

1156 High St Santa Cruz, CA 95064

Hours/Week: 20 Supervisor Name: Dr. Frank Bauerly

Salary: 2100/mo Supervisor Contact: (831) 459-2969 bauerle@ucsc.edu

Taught undergraduate mathematics sections in differential and integral calculus, linear algebra and precalculus both in class and online. Responsibilities included leading problem solving sections, writing, administering and grading quizzes, grading exams, holding office hours and ensuring student comprehension while upholding the high standards of the University of California.

San Diego State University

San Diego, CA

Teaching Assistant and Graduate Student

August 2013 - May 2015

5500 Campanile Dr San Diego, CA 92182

Hours/Week: 20 Supervisor Name: Dr. J. Carmelo Interlando

Salary: 2400/mo Supervisor Contact: (619) 594-7237 carmelo.interlando@sdsu.edu

Taught problem solving sections for undergraduate differential and integral calculus courses. Responsibilities included leading problem solving sections, writing, administering and grading quizzes, grading exams, holding office hours and ensuring student comprehension.

Research: Conducted original research on the topic of integral trace forms in cyclotomic fields leading to a solution to a special case of the shortest vector problem, a classical problem in number theory.

# Harvard Square Academy $(HS^2)$

Pleasanton, CA January 2012 - July 2013

Instructor

5690 Stoneridge Dr Pleasanton, Ca 94588

Hours/week: 35 Supervisor Name: Mr. Pan

Salary: 25/hr Supervisor Contact: 925-460-9888 pleasanton@hs2academy.com

Taught all of the mathematics courses offered at the Pleasanton Branch of  $HS^2$  including Algebra, Precalculus and Calculus AB/BC. I also taught standardized test preparation courses in SAT Quantitative Reasoning and SAT2 Math II, achieving a median score increase of over 300 points over the course of ten weeks. An important component of my job at HS2 was communicating and coordinating with parents and guidance counselors to ensure student success.

# **Huntington Learning Center**

Walnut Creek, CA July 2011 - January 2012

Instructor and Tutor July 2

2050 N Broadway Walnut Creek, Ca 94596

Hours/Week: 15 Supervisor Name: Carol Krupp

Salary:12/hr Supervisor Contact: Branch Location Closed

Responsibilities included privately tutoring students in a one on one setting in mathematics and occasionally using Huntington curriculum as supplementary material.

Mathnasium

Lafayette, CA

Instructor

June 2011- August 2012

9435 Mt. Diablo Blvd Lafayette, Ca 94549

Hours/Week: 15 Supervisor Name: Ara Chakrabarti

SALARY: 11/hr Supervisor Contact: (925) 462-8411 pleasanton@mathnasium.com

Tutored students in mathematics using Mathnasium curriculum.

## Research Experience

While earning my Master's degree in mathematics at San Diego State University, I spent two years as a graduate student researcher, conducting original mathematical research in algebraic number theory. A major component of my research was the development of new mathematical methods for solving a variety of problems related to trace forms, lattice theory and sphere packings—the scientific and engineering applications of this research having important implications for the future of quantum cryptography.

Dissertation: The Integral Trace Form in Cyclotomic Fields

Advisor: J. Carmelo Interlando PhD

Abstract: In this work the integral trace form of cyclotomic fields is investigated. We first show that the formula in the general case, that is, cyclotomic fields of any conductor, can be reduced to the case where

the conductor is square-free. As corollaries, we obtain: 1) a symmetric polynomial representation of the form in cyclotomic fields of prime conductor (a result earlier obtained by Interlando) and 2) the form in the case of cyclotomic fields of prime power conductor. We then use the latter form to produce a succinct algorithm for computing the nonzero minimum of the form within a certain submodule of the ring of integers of the cyclotomic field. One of the applications of this is in finding the shortest (nonzero) vector of a lattice, a classical problem in geometry of numbers.

### **Professional References**

• J. Carmelo Interlando PhD (Thesis Advisor)

J. Carmelo Interlando PhD Professor of Mathematics

Department of Mathematics & Statistics

San Diego State University

San Diego, CA 92182-7720

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Fax: (619) 594-6746

email: carmelo.interlando@sdsu.edu

• Ara Chakrabarti (former Employer)

Mathnasium 915 Main St, D,

Pleasanton CA 94566

phone: (925) 462-8411

email: pleasanton@mathnasium.com

• Ryan Alexiadis

Former student at UCSC

Graduated with degree in pure math in 2016

phone: (661) 916 - 3285