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**ABOUT ME** I am a graduate student in mathematics doing research in combinatorics, coxeter group theory and discrete geometry. I have extensive experience working with high school age students through standardized and improvized curriculum. Additionally, I have six semesters of experience teaching and TAing first and second year university math courses.

My multidisciplinary background in philosophy, logic, and computer science gives me multiple pedagogical approaches to problems. I strive to teach, not specific theorems, but a process of reasoning that has allowed me to succeed in accelerated mathematical curriculum. My teaching is an intense mental training in preparation for productive self-study.

**EDUCATION** **SFSU: M.A.** Mathematics, 2015  
Advisor: Dr. Federico Ardila.  
Thesis: *The Geometry of Generalized Permutohedra of the Classical Reflection Groups*  
**SFSU: B.A.** in Philosophy, minor: Mathematics, May 2012  
**Universtié Paris 1 Panthéon-Sorbonne**  
CSU International Exchange program in the dept. of Logic. 2010-2011

**COURSES TAUGHT/TA** TA Geometry  
Pre-calculus  
TA Calculus I and II: Helped develop the infrastructure and administration for online calculus courses with over 200 students.  
Algebra II  
Algebra I

**VOLUNTEERING** 2015 Math tutor at College Track in San Francisco CA.  
2013 STEM tutor at ISEED in Oakland, CA: created curriculum for an after school tutoring  
2012 Teaching aid in Math and Physics classes: Balboa and Mission Highschools.

**AWARDS** 2013-14 Maxwell Scholarship, College of Science and Engineering, SFSU, \$4,000.  
2012-13  $(CM)^2$  grant, Department of Mathematics, SFSU, \$5,000.

**CONFERENCES/WORKSHOPS** 2015 International Conference on Formal Power Series and Algebraic Combinatorics, Daejeon, South Korea.  
2015 **nominated participant** MSRI: Summer Graduate School in Geometric Group Theory.  
2015 Bay Area Discrete Math Day, Monterey, CA.

2014 Symbolic and Numerical Methods for Tensors and Representation Theory, Simons Institute, Berkeley , USA.  
2014 Stanley @70, MIT, Cambridge, USA.  
2014 **invited speaker** Encuentro Colombiano de Combinatoria, Univsersidad de Los Andes, Bogotá, Colombia, 2014.  
2014 Bay Area Discrete Math Day, Santa Clara, CA.  
2013 Bay Area Discrete Math Day, Berkeley, CA.

LANGUAGES            English (Native), French (Fluent written and oral)

REFERENCES        **Dr. David Bao** , Professor and Chair of Math department, SFSU,  
                      dbao@sfsu.edu