

BIOGRAPHICAL SKETCH

Candice Price, PhD
Associate Professor, Smith College

a. Professional Preparation

California State University, Chico	Chico, CA	Mathematics	BS. 2003
San Francisco State University	San Francisco, CA	Mathematics	MA. 2007
University of Iowa	Iowa City, IA	Mathematics	Ph.D. 2012
National Research Council (NRC)	West Point, NY	Mathematics	Jul13-Jul15

b. Appointments

Associate Professor, Smith College	Northampton, MA	Jul21-Pres
Assistant Professor, Smith College	Northampton, MA	Jul19-Jun21
Assistant Professor, University of San Diego	San Diego, CA	Aug16-Aug20
Assistant Professor, Sam Houston State University	Huntsville, TX	Sep15-Jun16
Assistant Professor, United States Military Academy, West Point	West Point, NY	Jul12-Jul15

c. Recent Products

- N. Jonoska, N. Obatake, S. Poznanović, **C. Price**, M. Riehl, M. Vazquez “Modeling RNA:DNA Hybrids with Formal Grammars”. In: R. Segal, B. Shtylla, S. Sindi (eds) *Using Mathematics to Understand Biological Complexity*. Association for Women in Mathematics Series, vol 22. Springer, Cham. https://doi.org/10.1007/978-3-030-57129-0_3 (2021)
- C. Price “An Opportunity for Inclusion: A course in the history of mathematics that includes mathematical contributions of non-European cultures” *Notices of the American Mathematical Society* (68)2, 205-207. <http://dx.doi.org/10.1090/noti1633> (2021)
- C. Price, I. Darcy. “Oriented skein relation and a biological application” *Journal of Knot Theory and Its Ramifications* Vol 28.13, <https://doi.org/10.1142/S0218216519400169> (2020)
- G. Suarez, O. Udiani, B. Allan, C. Price, S. Ryane, E. Lofgren, A. Coman, C. Stone, L. Gallos, N. Fefferman. “A generic arboviral model framework for exploring trade-offs between vector control and environmental concerns” *Journal of Theoretical Biology* Vol. 490, <https://doi.org/10.1016/j.jtbi.2020.110161> (2020)
- S. Wilson, S. Sindi, H. Brooks, M. Hohn, C. Price, A. Radunskaya, N. Williams, N. Fefferman. “How Emergent Social Patterns in Allogrooming Combat Parasitic Infections” *Frontiers in Ecology and Evolution* Vol 8, <https://doi.org/10.3389/fevo.2020.00054> (2020)

d. Synergistic Activities

- 1) **Co-founder, *Mathematically Gifted and Black (MG&B) Website*** women mathematicians—Erica Graham, Raegan Higgins, and Shelby Wilson—with the goal of heightening the visibility and showcasing the careers of contemporary mathematicians of the African diaspora. The site celebrates the contributions of such individuals by amplifying their stories, recounted primarily in their own words. Achievements of mathematicians featured on the site have been further publicized in a series of posters of Black mathematicians distributed by the American Mathematical Society.

- 2) **Co-founder, *Underrepresented Students in Topology and Algebra Symposium*** In 2010, with three other graduate students at the University of Iowa, I co-founded and organized this national conference with support from NSF and NSA. The event, now in its tenth year, incorporates research presentations by graduate students underrepresented in mathematics, an undergraduate poster session, and a workshop addressing the specific needs and concerns of early career faculty. Underrepresented Students in Topology and Algebra Symposium (USTARS) has had an impact on more than 450 students and faculty by providing a needed space in which those underrepresented in mathematics are celebrated and supported for their contributions to mathematical research and where underrepresented students considering careers in mathematics can be inspired by and see themselves reflected in the breadth of accomplishments of those who have gone before them.
- 3) **Director, *MAA Tensor SUMMA Program*** I am the director of Mathematics Association of American Tensor SUMMA (Strengthening Underrepresented Minority Mathematics Achievement) Program: The Tensor Foundation has provided funding for the MAA to award Tensor SUMMA (Strengthening Underrepresented Minority Mathematics Achievement) grants for projects designed to encourage the pursuit and enjoyment of mathematics by students who are members of groups historically underrepresented in the field of mathematics. These include students who are African-American, Native American, Hispanic, or Pacific Islander.
- 4) **Co-Director, *MSRI-UP, Center for Women in Mathematics at Smith College***. I am a co-director for the Mathematical Science Research Institute's Undergraduate Program (MSRI-UP): is a comprehensive summer program designed for undergraduate students who have completed two years of university-level mathematics courses and would like to conduct research in the mathematical sciences, and a co-director of the Center for Women in Mathematics at Smith College: a part of the Smith College Department of Mathematics and Statistics, is an American educational program founded in 2007 to increase the involvement of women and other gender minorities in mathematics.
- 5) **Principal Investigator, *NSF Grant 2137739: DNA Knot Shadows Explorations*** To further the understanding of the dynamics of DNA topology, with this grant I apply combinatorial tools to interpret 2-dimensional projections of DNA products of protein action. As DNA knots are 3-dimensional objects, some information is inevitably lost when they are projected into 2-dimensions. In previous work, I extended the relationship between skein relation knot quadruples of 4-plats algebraically. The overall goal of this research is to extend the utility of knot quadruples with combinatorics by focusing on the 2-dimensional projections of knots with no crossing information.