

## BIOGRAPHICAL SKETCH

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### Candice Price, PhD Assistant 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

Assistant Professor, Smith College	Northampton, MA	Jul19-Pres
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. Products

(i) Products closely related to the proposed project:

- 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. Jones, C. Price. “DNA Topology Review”, *Advances in the Mathematical Sciences*, Springer International Publishing, Vol. 15, 121-144, [https://doi.org/10.1007/978-3-319-98684-5\\_8](https://doi.org/10.1007/978-3-319-98684-5_8) (2018)
- C. Price. “Applications of Knot Theory: Using Knot Theory to Unravel Biochemistry Mysteries.” *Advances in the Mathematical Sciences*, Springer International Publishing, Vol. 6, 173-186, [https://doi.org/10.1007/978-3-319-34139-2\\_7](https://doi.org/10.1007/978-3-319-34139-2_7) (2006)

(ii) Other significant products:

- N. Jonoska, N. Obatake, S. Poznanović, C. Price, M. Riehl, M. Vazquez. “Modeling RNA:DNA Hybrids with Formal Grammars” To be featured in *Using Mathematics to Understand Biological Complexity*, Springer International Publishing.
- 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)
- H. Brooks, M. Hohn, C. Price, A. Radunskaya, S. Sindi, N. Williams, S. Wilson, N. Fefferman. “Mathematical analysis of the impact of social structure on ectoparasite load

in allogrooming populations”, *Understanding Complex Biological Systems with Mathematics*, Springer International Publishing, Vol. 14, 47-61, [https://doi.org/10.1007/978-3-319-98083-6\\_3](https://doi.org/10.1007/978-3-319-98083-6_3) (2018)

- N. Williams, H. Brooks, M. Hohn, C. Price, A. Radunskaya, S. Sindi, S. Wilson, N. Fefferman “How Disease Risks Can Impact the Evolution of Social Behaviors and Emergent Population Organization.”, *Understanding Complex Biological Systems with Mathematics*, Springer International Publishing, Vol. 14, 31-46, [https://doi.org/10.1007/978-3-319-98083-6\\_2](https://doi.org/10.1007/978-3-319-98083-6_2) (2018)

#### d. Synergistic Activities

- 1) Mathematically Gifted and Black (MG&B) Website** In 2017, I co-founded the website Mathematically Gifted and Black with 3 other Black 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) Founder, Underrepresented Students in Topology and Algebra Symposium** In 2010, with other three 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) Editor, *Advances in the Mathematical Sciences*.** I was an editor of this volume highlighting the research presented at the Association for Women in Mathematics’ 2017 Research Symposium, which was subsequently published by Springer International.
- 4) Plenary Speaker, Math for All Conference** I was a plenary speaker for “Math for All” hosted by Tulane University in New Orleans, LA, on March 6-7, 2020. This conference fosters inclusivity in mathematics through formal and informal talks and discussions by a diverse range of participants addressing contemporary issues in mathematics research and education.
- 5) Principal Investigator, Directed Reading Network.** The Directed Reading Program (DRP), founded at the University of Chicago, pairs undergraduates with graduate students for independent study projects in mathematics. I served as PI on an NSF grant (DUE 1740089) that provided seed funding to support other graduate programs in starting their own DRPs and to study the efficacy and outcomes of various DRPs in the network.