Juliette Bruce's Abridged Diversity Statement

I. Introduction. I believe strongly in the importance of inclusivity, diversity, and justice, and I am passionate about promoting these values within the mathematical community. Going forward, I am excited to continue working hard to promote these values through my research, teaching, and service.

II. National & International Advocacy. I have worked with the Executive Committee of the *Association for Women in Mathematics* to consider ways they could expand their support of women and non-binary mathematicians. In Winter 2023 I joined MSRI's *Committee on Women in Mathematics*. Since Fall 2020 I have organized *Trans Math Day*, an annual virtual conference for transgender and non-binary mathematicians. This conference has 50 participants. Highlighting the importance of such conferences one participant said, "I've been really considering leaving mathematics. [Trans Math Day] reminded me why I'm here and why I want to stay." I have been a board member for *Spectra: The Association for LGBTQ+ Mathematicians* since 2020, including as the inaugural president in 2022. In this role, I have overseen the growth and formalization of the organization, including the creation of an invited lecture at the Joint Mathematics Meetings, and a $20,000+ fundraising campaign. Spectra has 500 members.

Going forward I am excited to continue my work supporting LGBTQ+ students and would love to continue building organizations to do so. Given the amazing successes of programs like MSRI-UP and the EDGE Program, I dream of organizing a summer REU program specifically aimed at supporting and promoting LGBTQ+ mathematicians. Further, I am in the early stages of planning a mentorship program to help guide LGBTQ+ undergraduates through the process of applying to graduate programs in mathematics and helping young LGBTQ+ graduate students establish themselves.

III. Mentoring. As a postdoc, I began research projects with three graduate students (a majority of whom identify with a generally underrepresented group). These projects have resulted in two pre-prints, with additional projects still ongoing. Throughout the Spring and Summer of 2022, I did a reading course with a first-year graduate woman on algebraic geometry. I advised two summer research projects for undergraduate students. The first of these projects ran virtually during Summer 2021 when 6 undergraduates. In Summer 2022 I advised an undergraduate student on a research project related to my work on syzygies. This work is ongoing and will hopefully result in a paper. This student is now in graduate school for math and was awarded an NSF Graduate Fellowship.

IV. Virtual Mathematics In response to the COVID-19 pandemic and the shift of many mathematical activities to virtual formats, I worked to find ways for these online activities to reach those often at the periphery. During the Summer and Fall of 2020, I helped with Ravi Vakil's *Algebraic Geometry in the Time of Covid* project. This massive online open-access course in algebraic geometry brought together $\sim 1,500$ participants from around the world. In Spring 2021, I organized an 8-week virtual reading course for undergraduates in algebraic geometry and commutative algebra.