Juliette Bruce's Career Goals

Long-term my career goal is to be a mathematics professor at a research university, using this position to continue researching algebraic geometry, mentor the next generation of researchers from underrepresented groups in math, and promoting diversity, inclusion, and justice within the mathematics community. As a way towards this goal, my short-term career goal is to have a post-doctoral position at a research university where I would be able to continue learning and refining my skills as a researcher, teacher, mentor, and organizer. Having talked with my faculty mentor Professor Dave Jensen we both feel strongly that these career goals would be significantly advanced by being a University Research Postdoctoral Fellow at the University of Kentucky.

Working with Dave Jensen would provide the opportunity to learn from one of the foremost experts in algebraic geometry. Professor Jensen has done substantial work concerning the geometry of curves and tropical geometry. Working with him would likely prove valuable in advancing my own research projects. Further, while visiting the University of Kentucky in the Spring of 2019, Professor Jensen had a number of stimulating conversations about possible research projects we might pursue. In short, working with Professor Dave Jensen would significantly advance my goals of being a math professor at a research university.

Additionally, the Department of Mathematics at the University of Kentucky has a large number of faculty in commutative algebra and algebraic geometry (Uwe Nagel, Christopher Manon, etc.). This will provide a rich mathematical environment that would help advance my research career. Further, the University of Kentucky has a number of active outreach programs (Julia Robinson Mathematics Festival, Women and Mathematics Program, Central Kentucky Mathematics Circles, Geometry Lab, etc.) through which I would be able to continue promoting inclusivity and diversity in math.