A WORD FROM...

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Board Members of Spectra, the Association for LGBT Mathematicians

During the month of June, communities all around the country are celebrating LGBTQ+ pride. In other years, the celebrations would range from citywide parades down wide boulevards to small community gatherings in public parks. With the covid-19 pandemic, this year’s celebrations are likely to involve virtual parades and gatherings, or even the simple act of raising a rainbow flag outside a window or on a front porch. Even in these sad and challenging times, many voices will still come together to form a diverse chorus with a message of celebrating one’s sexual identity and gender expression, one that reflects the palpable changes in society in the past fifty years. The LGBTQ+ community cuts across all demographics, and from this inherent diversity we find strength in supporting each other. At its core, LGBTQ+ pride is about celebrating the communities that allow us to be more authentic versions of ourselves.

For as long as there has been mathematics there have been LGBTQ+ mathematicians. You most likely have been taught by one, or at the very least attended a talk given by one. Almost certainly you have had LGBTQ+ students in your classes, and maybe even written letters of recommendation for some. Indeed, recent reports find 20% of undergraduates describing their sexuality as nonheterosexual and 2.3% describing their gender as something other than a cisgender man or woman (cisgender means having the same gender identity as the gender assigned at birth). If your mental inventory of LGBTQ+ students and colleagues comes back empty, know that many of us are reluctant to be out professionally as an act of self-preservation. Beyond the threat of physical harm, there is a mental calculus of potential pitfalls in being out due to the biases of those evaluating us. These biases can manifest at all stages of our career: a professor writing a reference letter, a potential graduate advisor, a member of a hiring committee, a student answering course reviews, or a colleague in our department.

Many LGBTQ+ mathematicians have to make these judgment calls and, first and foremost, should only do what they are comfortable with. However, the effect of these uncertain outcomes can result in a vacuum, as the lack of visible LGBTQ+ representation in mathematics informs and shapes our discipline. There should also be recognition of the privilege of being able to make this choice, since many members of the LGBTQ+ community do not have the luxury of “passing” as straight or cisgender. These members of our community are more likely to face the reality of discrimination and rejection that are constant fears in most of our minds.

These fears have unmistakable effects on our academic community. Recent studies found that 70% of first-year LGBTQ+ college students consider leaving school out of fear of being bullied or harassed. Furthermore, 73% of LGBTQ+ youth experience verbal threats due to their actual or perceived LGBTQ+ identity, only 13% hear positive

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1The opinions expressed here are not necessarily those of the Notices or the AMS.
messages about the LGBTQ+ community at school, and only 26% always feel safe in the classroom.\textsuperscript{4} Undergraduates who identify as a sexual minority are 7\% less likely to be retained in STEM majors than their heterosexual peers.\textsuperscript{5}

LGBTQ+ faculty report experiencing hostile or unsupportive work climates and often decide to remain closeted in academia.\textsuperscript{6} A recent survey found that over 40\% of LGBTQ+ members in STEM have not identified themselves as LGBTQ+ to colleagues even if they are out at home.\textsuperscript{7} At times, the only tangible LGBTQ+ community many LGBTQ+ mathematicians have is restricted to fortuitous personal relationships with others in their field or at the very few meetings with LGBTQ+ events, like those sponsored by Spectra, the Association for LGBTQ+ Mathematicians, at the Joint Mathematics Meetings. For more examples of the challenges LGBTQ+ mathematicians face we encourage you to look at the transcript of the AWM-Spectra Queer Families in Academia Panel later in this issue.

This Pride Month, we call on everyone in the mathematical community, both LGBTQ+ and not, to reflect on their role in fostering a safe and nurturing space for LGBTQ+ mathematicians. This call is especially directed at those who are in positions of institutional power and less likely to be negatively affected by pushback or backlash that could result when bringing up these issues in certain settings. Many of the most vulnerable members of our community need visible mentors and allies to support them in their journey. Stories of struggling transgender, nonbinary, and gender nonconforming mathematicians are not hard to find,\textsuperscript{8} and their vulnerability affects us all.

Part of this call is for mathematicians who are LGBTQ+ to actively “lean in” to their identity and to seek community. The importance of visible LGBTQ+ representation cannot be understated, and every LGBTQ+ faculty member holds more potential to create a sense of safety and belonging in their classroom and department than any chief diversity officer could hope to have. Key to this is finding a balance between being an “LGBTQ+ mathematician” and being a “mathematician who is LGBTQ+.” The former is a mathematician that actively engages with the LGBTQ+ academic community, while the latter is a person who identifies primarily as a mathematician and is also LGBTQ+. By no means are these roles exclusive, and finding a functional balance between the two will vary from person to person. This route may lead to learning how to be deliberate with your identity and unlearning some of the defense mechanisms that have shielded us.

There are many ways to be actively LGBTQ+ in mathematics: be out to students and colleagues; engage with LGBTQ+ student groups, STEM or otherwise; give a talk on your work and give an aside about your experience; engage and program events with other members of Spectra; organize or attend workshops and conferences that celebrate the duality of your identity as a LGBTQ+ mathematician; add yourself to the Outlist on Spectra’s website;\textsuperscript{9} use Twitter to connect with other members of the community and gain insights that would otherwise be inaccessible; know the issues affecting members of our community as a whole and fight for the most vulnerable.

We also call on non-LGBTQ+ mathematicians to recognize that LGBTQ+-blind atmospheres, even if well intentioned, serve to ignore the problem and implicitly reinforce heteronormative standards. Allyship means actively listening and taking well-informed action: send out pre-semester surveys that ask for preferred names and pronouns and include your own in the syllabus; add an inclusion statement to your syllabus and take time in class to discuss expected norms; know what resources are available on your campus, for students and faculty alike, and use them; add yourself to the Allylist on

\textsuperscript{4}Human Rights Campaign, 2018 LGBTQ youth report, 2018.
\textsuperscript{5}Bryce E. Hughes, Coming out in STEM: Factors affecting retention of sexual minority STEM students, Science Advances 4 (2018), no. 3.
\textsuperscript{6}Diana Bilimoria and Abigail J. Stewart, “Don’t ask, don’t tell”: The academic climate for lesbian, gay, bisexual, and transgender faculty in science and engineering, NWSA Journal (2009), 85–103.
\textsuperscript{7}Jeremy B. Yoder and Allison Mattheis, Queer in STEM: Workplace experiences reported in a national survey of LGBTQA individuals in science, technology, engineering, and mathematics careers, Journal of Homosexuality 63 (2016), no. 1, 1–27.
\textsuperscript{8}Jo Boaler, Living proof: Stories of resilience along the mathematical journey, 2020.
Spectra’s site; complete Safe Space training. When in doubt, the best advice is to ask your students questions like “Do you feel respected/included?” and “What makes you feel respected/included?” on mid-course evaluations. The responses will not only grant insightful and course-specific feedback, but simply asking can make students feel like their identities are recognized and valued.

Mathematics is a discipline created, taught, and learned by people whose humanity should not be ignored, and our mathematical spaces are forged by the identities of those within them. This Pride Month, we ask that all members of the mathematical community reflect on their perspectives, and acknowledge that LGBTQ+ faculty and student experiences and identities cannot be dismissed without harm. We call for active, intentional efforts to create a mathematical community in which LGBTQ+ faculty and students feel safe, supported, and validated in all aspects of their identity.

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