

Program Notes

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This performance is a creative offshoot of a larger research project aimed at understanding the mathematical experience. When mathematicians do mathematics, what is it like? What images do they see in their minds, with what colors, shapes, or textures? What conceptual metaphors do they use to make sense of their abstractions? Do mathematical objects make sounds? Do they have personalities? Are they characters in stories?

In 2013, I asked these sorts of questions in a survey of 21 research mathematicians. Specifically, they were asked to describe the experience of working with their favorite “group”. A group is a set of objects endowed with an associative binary operation, which has an identity such that every element has an inverse element. (One example is the hours on a clock, another is the set of ways of shuffling a deck of cards. To explore the diversity of groups is to wander through a strange zoo of the mathematical imagination.)

Last fall, the collated survey responses were handed over to the Lawrence Creative Writing Club. With the help of Austin Segrest in the English department, and Andrew McSorley in the library, the writers produced six poems based on the mathematicians’ comments. These were then delivered to the IGLU ensemble, to serve as a catalyst for musical explorations.