

Pictures of Monomial Ideals

What: Bi-State Math Colloquium

When: Wednesday, February 20, 4:00PM

Where: Loras College, Hennessy 350

Who: Dr. Angela Kohlhaas

Monomial ideals are important objects in mathematics for their simplicity and for the properties that they share with other, more complex structures. Although they are abstract objects, these particular ideals can be represented by pictures and graphs. In this talk, I will introduce monomial ideals and show the audience how to construct their corresponding diagrams. We will look at how patterns in the diagrams relate to various algebraic properties. I will then discuss some of the symmetries I discovered studying objects called cores of monomial ideals.

Angela Kohlhaas is an Assistant Professor of Mathematics at Loras College. She likes exploring ways of visualizing algebra through geometry and combinatorics, which is evidenced by all of the origami creations in her office.