

**Bi-Co Mathematics Colloquium  
&  
Young Academic Alumni Lecture Series**

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University of Minnesota

***“Quotients of Special Classes of Positroids”***

***Tuesday, March 5, 2024***

*Talk at 4:15 – Hilles 108*

*Tea at 4:00*

**Abstract:**

A matroid is a structure that abstracts linear independence. There is a special kind of matroid called positroids, and there has been great interest in characterizing quotients of positroids. In this talk, we will talk about the definitions of matroids, matroid quotients, positroids, and two combinatorial objects that are in bijection with positroids. After that, we give a complete characterization for positroid quotients of adjacent ranks. When the larger matroid is a uniform matroid, we give a characterization for positroids with any rank that are quotients of it. At the end, we will provide several interesting follow-up open problems.

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