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## Food For Thought Seminar

# Jason O'Neill

### Building new posets from old: The Tesler poset

#### Abstract:

Tesler matrices are certain integral matrices counted by the Kostant partition function and have appeared recently in Haglund's study of diagonal harmonics. In 2014, Drew Armstrong defined a poset on such matrices and conjectured that the characteristic polynomial of this poset is a power of (q - 1). We will use a method of Bruce Sagan and Joshua Hallam to prove Armstrong's conjecture and explore how this result can improve the bounds on the number of Tesler matrices.

## Monday, March 5, 2018 12:00 PM AP&M 7421 \*\*\*\*