

VCU Discrete Mathematics Seminar

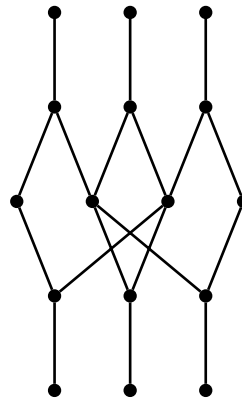
Chain Partitions of Normalized Matching Posets

**Prof Shahriar Shahriari
(Pomona College)**

Wednesday, Oct. 15
1:00-1:50 EDT

In person in 4145 Harris Hall. And a Zoom option:

<https://vcu.zoom.us/j/81475528886>
password=graphs2357



Normalized matching posets (aka LYM posets, the posets that satisfy the LYM inequality for antichains) are a class of posets that include subset and subspace lattices as well as divisor lattices. In this talk, we will discuss questions about partitioning a normalized matching poset into chains. Almost all such questions start with the poset of subsets of a finite set where many open questions remain. Given a finite (in our case normalized matching) poset P , and k positive integers that add up to $|P|$, can you find k chains (i.e., totally ordered subsets of the poset) that partition P and whose sizes are precisely the given positive integers? Particular cases of this question will be discussed.

For the DM seminar schedule, see:

<https://go.vcu.edu/discrete>