Lattice paths, linear algebra and combinatorics
Day 3

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Universidad de los Andes

with Jerónimo Valencia

Mathematics Sin Fronteras
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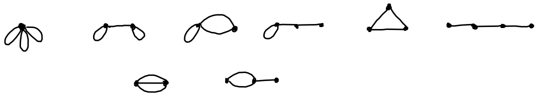
Last time: posets



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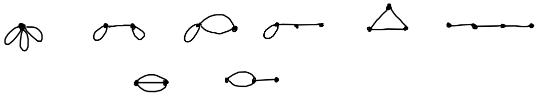
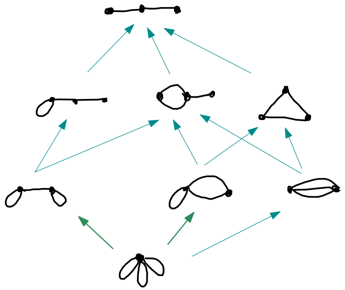
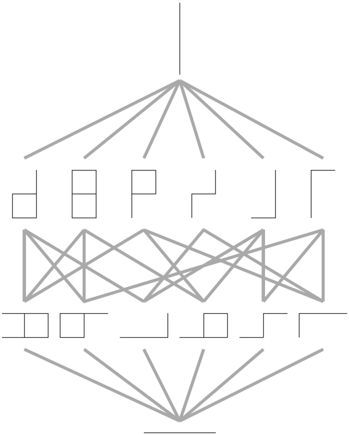




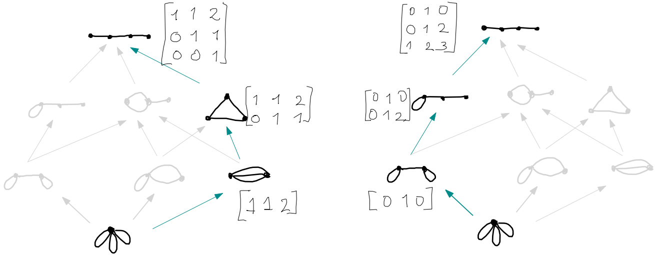
- $g \lessdot h \leftrightarrow$ every circuit of h is a union of circuits in g and $r(g) + 1 = r(h)$.

Today: poset of LPMs



Quotients of matroids

A matroid N is a quotient of a matroid M if every circuit of M is a union of circuits of N.



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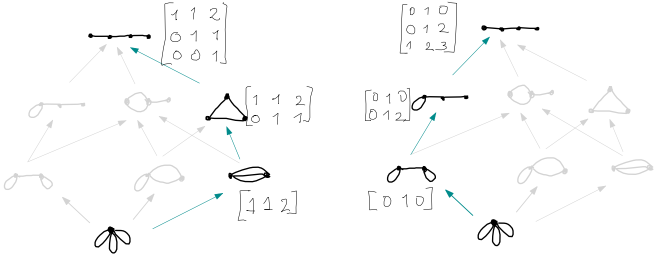
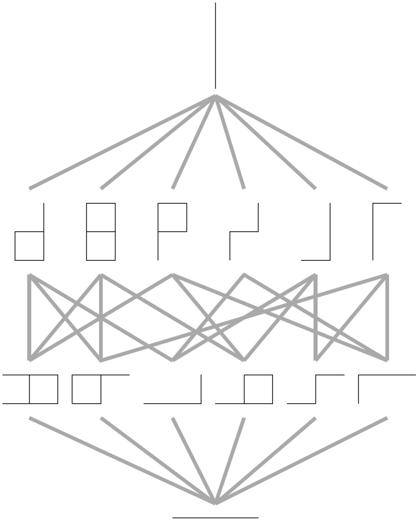
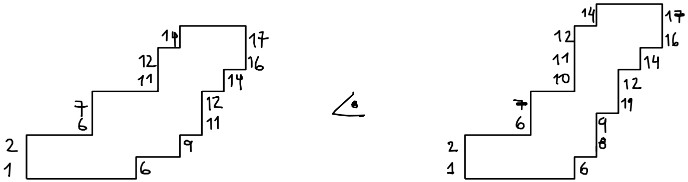


◦ Is there a "more combinatorial" way to understand quotients for other families of matroids?

Quotients of LPMs in [3]



An example in [17]



Poset of quotients of LPMs: open questions

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¡Muchas gracias!