

1077-05-2653      **Vaidy Sivaraman\*** ([vaidy@math.ohio-state.edu](mailto:vaidy@math.ohio-state.edu)). *Signed-graphic representations of matroids.*

This talk is about the class of signed-graphic matroids, focussing particularly on two aspects: (1) Finding explicit signed-graphic representations of certain classes of matroids (2) Finding when two signed graphs have the same frame matroid (analogue of Whitney's 2-Isomorphism Theorem for the class of signed-graphic matroids).

Some families of matroids considered are the wheels, whirls, frame matroids of all-positive complete graphs, all-negative complete graphs, cycles where each edge is replaced with a negative digon. The regular-case of the signed-graphic matroid isomorphism problem involves the projective plane, and that part of the talk will be based on joint work done with John Maharry, Neil Robertson, and Daniel Slilaty. (Received September 22, 2011)