Abstract: Modular symbols, due to Birch and Manin, provide a very concrete way to compute with classical modular forms. Later modular symbols were extended to GL(n) by Ash and Rudolph, and since then such symbols and variations have played a central role in computational investigation of the cohomology of arithmetic groups over number fields, and in particular in explicitly computing the Hecke action on cohomology.

A theory of modular symbols for GL(2) over the rational function field was developed by Teitelbaum and later applied by Armana. In this talk we extend this construction to GL(n) and show how it can be used to compute Hecke operators on cohomology. This is joint work with Dan Yasaki.