Hypergeometric Motives

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Hypergeometric functions in various forms are ubiquitous in mathematics. More recently, analogs of these have been defined over finite fields. These are character sums, and they have applications to counting points of varieties over finite fields.

Classical complex-analytic hypergeometric functions, and hypergeometric functions over finite fields have parallel properties. In this talk I will explain that this is not an accident - they arise from the geometric source - a hypergeometric motive.

I will illustrate this by some recent results, some in collaboration with Fang-Ting Tu, on transformations of hypergeometric motives.