1070-20-102   **Steven V Sam*** (`ssam@math.mit.edu`) and **Jerzy Weyman**. *Geometric approach to Littlewood inversion formulas.* Preliminary report.

Littlewood gave branching rules for restricting representations of the general linear groups to orthogonal and symplectic groups as well as inversion formulas for how to write an irreducible character for an orthogonal/symplectic group as an alternating sum of Schur functions. These inversion formulas are encoded in the minimal free resolutions of certain concretely defined algebraic varieties associated to these groups. I will explain this connection and say something about what happens in the case of exceptional groups and symmetric groups. The motivation for these varieties comes from previous investigations into the tensor product saturation problem, and time permitting, I will say something about the connection. (Received February 02, 2011)