

1067-53-166

Thomas H. Wears* (thwears@ncsu.edu), 2108 SAS Hall, North Carolina State University, Box 8205, Raleigh, NC 27695. *Moving Frames and The Equivalence of Homogeneous Polynomials*. Preliminary report.

The significance of Cartan's method of moving frames in applications to equivalence problems in differential geometry is well known. The method of moving frames as generalized by Fels, Olver and others allows for moving frames to be applied to a wide variety of equivalence problems. In this talk, I will show how combining the geometric method of moving frames with methods from classical algebraic invariant theory one can address the equivalence problem for multivariable polynomials under a linear change of variables. (Received July 28, 2010)