

James Freitag : On Differential Chow Varieties.

The set of positive cycles of a given variety of some fixed dimension and degree forms an algebraic variety, called a Chow variety. This talk is about establishing the differential algebraic analog. Several years ago, Li, Gao, and Yuan defined the differential Chow form, and began the study differential Chow varieties, whose existence they were only able to establish in very special cases. We answer the natural question left open by their work by establishing the existence of differential Chow varieties. This is joint work with Tom Scanlon and Wei Li.