Motivic characteristic classes for singular spaces

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The talk gives an introduction to the recent theory of motivic characteristic classes for singular spaces, using the language of Borel-Moore theories due to Levine-Morel. These are universal characteristic class transformations, which can be defined on the relative Grothendieck group of (complex) algebraic varieties. The Hirzebruch class transformation for example unifies the Chern class transformation of MacPherson, the Todd class transformation of Baum-Fulton-MacPherson and the L-class transformation of Cappell-Shaneson.