1145-14-236 **Robert Lazarsfeld***, Department of Mathematics, Stony Brook University, Stony Brook, NY 11794. Tangent Developable Surfaces and the Equations Defining Algebraic Curves.

In the early 1980's, Mark Green made a very influential conjecture about the defining equations and higher syzygies of canonically embedded projective algebraic curves. While the conjecture remains open in general, Voisin settled the generic case in two breakthrough papers appearing about fifteen years ago. Very recently, Aprodu, Farkas, Papadima, Raicu and Weyman gave a simple new proof of Voisin's theorem. Their work revolves around the analysis of a very classical geometric object, namely the tangent developable surface of a rational normal curve. In this talk aimed at non-experts, I will survey this circle of ideas. (Received August 23, 2018)