SYZYGIES OF ALGEBRAIC CURVES

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ABSTRACT. Formulated in 1984, Green's Conjecture on syzygies of canonical curves is a vast generalization of a famous theorem of M. Noether and has been one of the most intensely studied questions in algebraic geometry. It predicts that the intrinsic geometry of a curve (in the form of its complexity in its moduli space) can be recovered in a precise way from the equation of the canonical embedding. I will present an introduction to this circle of ideas and recent decisive progress on intimately related questions, like the Prym-Green Conjecture.