1106-03-1937   **James Freitag*** (`freitagj@gmail.com`), Department of Mathematics, University of California, Berkeley, 970 Evans Hall, Berkeley, CA 94720-3840. *Unlikely intersections and differential algebra.*

We will explain how differential algebra can be used to give effective bounds for the intersection of isogeny classes of transcendental points in products of modular curves with non-weakly special subvarieties. The finiteness results come from doing intersection theoretic computations in jet spaces and from a model theoretic analysis of the differential equation satisfied by the j-function. We will also discuss generalizations of the result to higher dimensional moduli spaces. (Received September 15, 2014)