Joe Rabinoff:Â **Uniform bounds on rational points via p-adic integration and Berkovich skeletons**

The Mordell conjecture, famously proved by Faltings in 1983, states that a Q-curve X of genus g >= 2 has finitely many rational points. Â Recently, Stoll proved that the number of rational points on a hyperelliptic curve of Mordell--Weil rank at most g-3 is bounded by a number depending only on the genus. Â He used a Chabauty--Coleman integration argument as applied to a decomposition of X into open discs and annuli. Â We extend Stoll's methods, reformulating the problem in terms of skeletons of Berkovich curves and using the Baker--Norine theory of linear systems on the resulting metric graphs. Â We obtain a uniform bound on the number of rational points on any curve of Mordell--Weil rank at most g-3. Â Importantly, our methods also allow one to bound geometric torsion points lying on a curve, giving a uniform Manin-Mumford type result for curves of certain highly degenerate reduction types.Â This work is joint with Eric Katz and David Zureick-Brown.