

Rational Points, Height Bounds, and Weak Approximation via Higher Positive Curvature

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I will prove existence of rational points, with uniform height bounds, for specializations of projective manifolds with higher positive curvature over various fields: global function fields (joint with Chenyang Xu), perfect PAC fields, function fields over PAC fields that contain roots of unity, most p -adic fields, etc. Time permitting, I will explain cases of the "Weak Approximation Conjecture" proved by Minoccheri, Findley, etc. using rational simple connectedness.