Algebra Seminar

Rational connectivity and analytic contractibility

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Abstract: Let K be an algebraically closed field of characteristic 0. A smooth projective K-variety X is rationally connected if each pair of points in X is connected by a rational curve inside X. Over a non-archimedean field K, each of these rational curves becomes a contractible Berkovich space, so X has lots of contractible subvarieties. In fact more is true: In this talk, I will discuss recent work with Morgan Brown in which we prove that over the non-archimedean field K=C((t)), the Berkovich space associated to any smooth projective, rationally connected variety X is contractible.

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