

Boundedness and Moduli Problems in Birational Geometry and Foliation Theory



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Rational curves on very general complete intersections of high degree.

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I will report on a joint work-in-progress with F. Bastianelli. It is well known thanks to Ein that very general complete intersections of multidegree $(d_1, \dots, d_c)$ in the projective n -space do not contain rational curves as soon as $d_1 + \dots + d_c > 2n - c - 1$. This result has been sharpened in the case of hypersurfaces thanks to a method introduced by Voisin that inspired further work by Clemens, Ran and myself. Despite more recent work by Coskun, Riedl, Yang, Abe and others in the hypersurface case, Ein's result has not been improved in the case of higher codimension. The goal of the project is to do so. I will illustrate the main steps of the proof with particular emphasis on a key intermediate result consisting in the proof of the integrability of a certain distribution that naturally comes into the picture.

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