Algebraic curves and their applications

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The foundation of the theory of algebraic curves over the complex field goes back to the Nineteenth century, and most of this theory holds true if C is replaced by any field of characteristic zero. However, significant differences arise in positive characteristic. One of the main features of algebraic curves in positive characteristic concerns the fact that they may have much larger automorphism groups (compared to their genus) than in the zero characteristic case. This seminar will be dedicated to the description of the relationship between automorphism groups and some birational invariants of an algebraic curve, and to the presentation of our main contributions.

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