



DYNAMICAL SYSTEMS SEMINAR

Some aspects about control systems and projective geometry

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Abstract. In this talk we will present some initial results and ideas about the study of control systems related with projective geometry. Specifically we consider an affine control system on \mathbb{R}^n and then we, in some sense, embedded this system as a bilinear control system on a projective space (this embedding is inspired by a construction contained in Elliot's book [1]). Hence we have at least three control systems, the original affine system, its bilinear control system and the other bilinear control system on projective space. Our first step in this context is to study the relation between the control sets of these systems.

References

- [1] Elliott D.L. Bilinear control systems: Matrices in action. New York: Springer 2009.