

UIC Model Theory Seminar, April 28, 2006

Three colours: green

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In this talk I will present joint work with A. Baudisch, M. Hils and F. Wagner on Poizat's green fields. These fields are an infinite rank candidate for a bad field in characteristic 0. We will discuss how a result on Schanuel-like inequalities due to Ax allowed Poizat to obtain a finiteness result on the toric equations to consider for expressing \mathbb{Q} -linear independence for certain extensions in the Fraisse-Hrushovski model. We will conclude from this the existence of a collapsed structure, i.e., a field of rank 2 with a definable divisible proper multiplicative subgroup.