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Manin maps and algebraic independence

Attached to an abelian variety over a differential field, two Manin maps occur in the literature: one has a cohomological flavour, the other is differential algebraic. We will describe the corresponding Manin kernels, the ranks of their \mathbb{C} -linear extensions, and their applications to Ax-Lindemann problems; also, time permitting, their generalizations to semi-abelian varieties. Part of this study is joint with A. Pillay, and most of it is inspired by work of Y. André and of J. Ayoub, on which we will hear more on Friday.