

## Lectures on Transcendence on Commutative Algebraic Groups

by Professor Michel Waldschmidt

at NISER, Bhubaneswar (December 09–14, 2019)

Date	10.30–11.00	11.00–12.30	12.30–2.00	3.00–3.30	3.30–5.00	5.00–5.30	5.30–7.30	7.30–9.00
09.12.2019	-	-	Lunch	Tea	Lecture 1	Snacks	Discussion	Dinner
10.12.2019	Tea	Lecture 2	Lunch	Tea	Lecture 3	Snacks	Discussion	Dinner
11.12.2019	Tea	Lecture 4	Lunch	Tea	Lecture 5	Snacks	Discussion	Dinner
12.12.2019	Tea	Lecture 6	Lunch	Tea	Lecture 7	Snacks	Discussion	Dinner
13.12.2019	Tea	Lecture 8	Lunch	Tea	Lecture 9	Snacks	Discussion	Dinner
14.12.2019	Tea	TBA	Lunch	Tea	TBA	Snacks	Discussion	Dinner

**Abstract:** The goal of this course is to give an introduction to the methods of transcendence and algebraic independence on commutative algebraic groups. We start with a historical survey, explaining why algebraic groups are relevant. An introduction to algebraic groups will be included. Next we consider the strategy of the proof, which we divide in several steps. For each step we explain which are the relevant tools. We do not plan to give too much technical details; on the opposite we wish to explain the ideas and the reasons for proving auxiliary results like the criteria for algebraic independence and the zero estimates.