



Speaker: Anand Pillay
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Monday, October 29, 2012
4:15 PM
117 Hayes-Healy Hall

Title: Transcendence, Painleve equations, and model theory

Abstract:

We show that there are no algebraic relations over $C(t)$ between distinct solutions and their derivatives of a general Painleve equation, culminating a line of work starting with Painleve, Drach, and others. The proof requires an analysis and translation of the existing knowledge regarding "irreducibility" and algebraic solutions, with the model theory of differentially closed fields.