1014-30-598   **Yujie Ma*** (`yjma@mmrc.iss.ac.cn`), Zhongguancun East Road No. 55, Haidian, 100080 Beijing, Peoples Rep of China. *Rational Solutions of Algebraic Differential Equations.*

In this talk, we present our study on the rational solutions of algebraic differential equations. We use the algebro–geometric approach to obtain a bound of the degrees of rational solutions of a first order algebraic differential equation with algebraic genus greater than one. The algebro–geometric approach is also used to get a bound of the number of rational solutions of a first order algebraic differential equation. We also present some Malmquist–Yosida–Steinmetz type theorems from the algebro–geometric point of view. (Received September 21, 2005)