WILLIAM SIT, The City College of The City University of New York On Rota's Problem, Differential Type and Rota-Baxter Type Algebras

In this talk, I will recall Rota's Problem for linear operators on associative algebras, and discuss how computer algebra methods lead to a computed list of possible operators and the related algebras: one class being "differential type" and another being "Rota-Baxter type". If time allows, I will report on some recent developments on the list and propose some related research projects.

This is joint work with Li Guo (Rutgers University at Newark, USA) and Ronghua Zhang (Yunnan University, Kunming, China).