

**Meeting:** 1003, Atlanta, Georgia, SS 14A, AMS Special Session on D-Modules, I

1003-14-891      **Mircea I Mustata\*** (mmustata@umich.edu), Department of Mathematics, University of Michigan, Ann Arbor, MI 48109, and **Shunsuke Takagi** and **Kei-ichi Watanabe**. *Bernstein polynomials and invariants from positive characteristic*. Preliminary report.

I will describe invariants in positive characteristic which are analogues in this setting for the jumping numbers of the multiplier ideals. I will discuss open questions on the relation between the characteristic zero and the positive characteristic picture. Furthermore, I will show how the invariants in positive characteristic can be used to give roots of the Bernstein-Sato polynomial. (Received September 30, 2004)