1023-13-1073   **Max D Wakefield*** (`wakefield@math.sci.hokudai.ac.jp`), Department of Mathematics, Hokkaido University, Kita 10, Nishi 8, Kita-Ku, Sapporo, Hokkaido 060-0810, Japan. *Degeneration varieties and Macaulay inverse systems.* Preliminary report.

The goal of this talk is to investigate the relationship between exponents of an effective divisor and the degrees of the generators of the Macaulay inverse system ideal. The degrees of the generators of the module of derivations (i.e. the exponents) can change when the position of the points are changed. The first degeneration variety is the set of points such that the smallest exponent is less than half the floor of the sum of the multiplicities. We construct another variety similarly except instead of using the exponents we use the degrees of the generators of the Macaulay inverse systems ideal. In this talk we study the relationship of these two varieties. (Received September 25, 2006)