Max Wakefield* (wakefield@math.sci.hokudai.ac.jp), Department of Mathematics, Hokkaido University. The Jacobian ideal of a hyperplane arrangement.

Given a finite set of lines in the plane we can create a finite set of points by intersecting these lines. If we remember the number of lines that pass through each point we can reconstruct the original lines. The Jacobian ideal of a hyperplane arrangement is an ideal in the polynomial ring whose generators are the partial derivatives of the arrangements defining polynomial. In this talk we prove that an arrangement can be reconstructed from its Jacobian ideal.