1046-14-1921 **Elisabetta Fortuna**, **Patrizia Gianni** and **Barry Trager*** (bmt@us.ibm.com), IBM TJ Watson Research Center, 1101 Kitchawan Road, Yorktown Heights, NY 10598. *Generators of the ideal of an algebraic space curve.*

We show that the ideal of any reduced algebraic curve in affine 3-space whose Jacobian matrix has rank at least 1 at every singular point of the curve can be generated by three polynomials and we give constructive procedures to compute such generators. This generalizes Abhyankar's result for smooth irreducible space curves. The algorithms we present are probabilistic with certificates of validity and operate in polynomial time. (Received September 16, 2008)