1040-32-59 **Andreea Carina Nicoara*** (anicoara@math.harvard.edu), Science Center 325, Department of Mathematics, Harvard University, 1 Oxford Street, Cambridge, MA 02138. *Multiplier Ideal Sheaves in the Kohn Algorithm.* Preliminary report.

In order to study the subellipticity of the $\bar{\partial}$-Neumann problem on a pseudoconvex domain, Joseph J. Kohn defined subelliptic multipliers in 1979 and devised an algorithm for constructing them from the defining function of the domain. The Kohn algorithm generates sheaves of ideals of subelliptic multipliers over the ring of smooth functions, which is not a Noetherian ring. I will explore the properties of these sheaves, and in particular, I will explain how close these are to coherent analytic sheaves as defined in the Oka-Cartan theory. (Received January 20, 2008)