1031-32-78 **Andreea Carina Nicoara*** (anicoara@math.harvard.edu), Science Center 325, Department of Mathematics, Harvard University, 1 Oxford Street, Cambridge, MA 02138. *Equivalence of Types.*

Joseph J. Kohn's 1979 investigation of the subellipticity of the $\bar{\partial}$-Neumann problem on a domain in $\mathbb{C}^n$ identified two notions of finite type, an algebraic one expressed as a sequence of ideals that captures a unit after finitely many steps and a geometric one expressed as the finite order of contact of holomorphic varieties with the boundary of the domain. Joseph J. Kohn proved these two notions of finite type are equivalent to each other and to subellipticity for a pseudoconvex real-analytic domain. I will show the same equivalence holds for a pseudoconvex domain defined by a Denjoy-Carleman quasi-analytic function as well as for a pseudoconvex domain defined by a smooth function. The latter equivalence gives an affirmative answer to the Kohn Conjecture. (Received August 03, 2007)