

**DIRECT PROOF OF TERMINATION OF THE KOHN  
ALGORITHM IN THE REAL-ANALYTIC CASE**

Andreea Nicoara (University of Pennsylvania)

**Abstract.** In 1979 J.J. Kohn gave an indirect argument using the Diederich-Fornaess theorem that his algorithm terminates on a pseudoconvex real-analytic domain of finite D'Angelo type. I will give a direct argument for the same assertion by constructing subelliptic multipliers that give a subelliptic estimate at each boundary point in terms of Catlin's boundary system at that point. I will also show what else is needed (two ingredients) in order to turn this argument into one that yields a lower bound for the subelliptic gain in terms of the dimension, D'Angelo type, and order of the forms for any pseudoconvex real-analytic domain of finite D'Angelo type.