

The geometry of holomorphic and algebraic curves in  
complex algebraic varieties

April 30 – May 4, 2007

The existence of symmetric differentials on  
projective manifolds  $X$  and  
its geometric consequences

Bruno de Oliveira  
*Department of Mathematics*  
*University of Miami*  
*College of Arts & Sciences*  
*PO Box 249085*  
*Coral Gables, FL 33124-4250*  
*USA*  
bdeolive@math.miami.edu

**Abstract**

I would talk about the impact of the space of symmetric differentials on the geometric properties of  $X$  as for example hyperbolic properties of  $X$  and also on classical geometric properties of  $X$  as a submanifold of  $\mathbb{P}^n$  (properties of the Gauss map and properties of the trisecant variety of  $X$ ).

In my web page one can find a preprint (with F. Bogomolov) which is the basis for the talk.

<http://www.math.miami.edu/~bdeolive/symtensors7.pdf>