11th ALGA Meeting

Maresias, São Paulo, from 10/16 to 10/22.

Speaker: Thiago Fassarella (UFF, Brazil)

Title: On the polar degree of projective hypersurfaces.

Abstract: Let f be a homogeneous polynomial in n+1 variables defined over the field of complex numbers. In this talk we analyze the relationship between the geometry of its zero scheme and properties of its polar map given by its partial derivatives. As an application, we classify the plane curves with polar map of low degree, including a very simple proof of I. Dolgachev's classification of homaloidal plane curves. Joint work with Nivaldo Medeiros.