Workshop on Fourier Analysis, Linear PDEs, and Related Topics Celebrating the 75th birthday of Adalberto Bergamasco

GLOBALLY SOLVABLE SYSTEMS OF COMPLEX VECTOR FIELDS ON THE TORUS

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In this talk I will discuss some works resulting from my doctoral thesis which was supervised by professor Adalberto P. Bergamasco. More precisely, we consider a class of involutive systems of smooth vector fields on the torus of dimension n+1. We obtain a complete characterization for the global solvability of this class in terms of Liouville forms and of the connectedness of all sublevel and superlevel sets of the primitive of a certain associated 1-form.