

Title

Diophantine approximations issues and global hypoellipticity for pseudodifferential operators

Abstract

We outline some recent investigations and preliminary results on the global hypoellipticity of first order pseudo-differential operators on compact manifolds in the presence of non-classical Diophantine approximation type problems.

The results are obtained in collaboration with F. Avila and A. Kirilov (UFPR, Curitiba, Brazil).