

---

**FELIPE CANO**, University of Valladolid

*Local Uniformization of Singular Codimension One Foliations*

This is a work in collaboration with Miguel Fernández-Duque. We prove the existence of Local Uniformization, in the classical sense of Zariski, for codimension one singular foliations in projective varieties of any dimension. The precise statement is as follows: Let  $K/k$  be the field of rational functions of a projective variety over a base field  $k$  of characteristic zero. A singular foliation  $F$  of codimension one is defined from a birational viewpoint as a 1-dimensional  $K$ -vector subspace of the Kähler differentials of  $K$  over  $k$ , satisfying Frobenius integrability condition. We take a  $k$ -valuation ring  $R$  of  $K$ . We show the existence of a projective model  $M$  of  $K$  such that  $F$  is simple at the center  $Y$  of the valuation in  $M$ . The definitions of simple points for  $F$  is compatible with the known ones in the holomorphic case, in particular with the definitions appearing in the statement of Cano's global reduction of singularities in dimension three.