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Dajano Tossici* (dajano.tossici@u-bordeaux.fr), 351 Cours de la Libération, 33400 Talence, France. *Models of diagonalizable group schemes.*

In this talk, I will speak about a joint work in progress with Matthieu Romagny. Let R be a discrete valuation ring with residue field of positive characteristic p and let K be its fraction field. Let G be a finite diagonalizable p -group scheme over K , i.e. a group scheme which is a product of μ_{p^i} for some i . We will construct a large family of models of G , i.e. finite and flat group schemes over R which are isomorphic to G over K . We stress that G is endowed with Kummer Theory which is encoded by a certain exact sequence. Indeed all our models are endowed with a theory of Kummer type which extends the Kummer theory that we have on the generic fiber G . We conjecture that all models of G are of this type. This work generalizes, using the same techniques, a previous work of the authors and Arian Mézard about models of μ_{p^n} . (Received January 21, 2019)