

« GÉOMÉTRIE ALGÈBRE AFFINE. UN ATELIER EN L'HONNEUR DE PETER RUSSELL »
1–5 JUIN 2009

“AFFINE ALGEBRAIC GEOMETRY. A CONFERENCE IN HONOUR OF PETER RUSSELL”
JUNE 1–05, 2009

Groups of Russell type and Tango structures

YOSHIFUMI TAKEDA

Department of Mathematics and Statistics
Wakayama Medical University
Kimiidera 811-1
Wakayama City, Wakayama Prefecture 641-8509
JAPAN

ytakeda@wakayama-med.ac.jp

Let C be a smooth curve over an algebraically closed field of positive characteristic and let X be a C -group scheme. We call X a *group of Russell type* if there exists a purely inseparable smooth finite covering $\tilde{C} \rightarrow C$ such that the fibre product $X \times_C \tilde{C}$ is isomorphic to some \mathbf{G}_a -bundle over \tilde{C} as a \tilde{C} -group scheme. The *Tango structure* is a certain invertible sheaf of locally exact differentials on a curve. In this talk, I will consider some typical groups of Russell type arising from Tango structures and their pathological properties.