

## **P.Krasoń : "Linear relations in algebraic groups"**

**Abstract:** We will discuss linear dependence of points in the Mordell-Weil groups of abelian varieties via the reduction maps and height function. We will give a numerical criterion for this type of the local to global criterion to hold. We also provide counterexamples which makes us think that this criterion is the best possible. We also phrase classical work in number theory on multiplicative relations on points and congruences, group theoretically as Hasse-principles on commutative linear algebraic groups, or tori, and ask for extensions to general - not necessarily commutative - reductive linear algebraic groups.