

Torsion in algebraic groups and problems which arise

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Since the investigations of Gauss on cyclotomy, the arithmetic of roots of unity and, more generally, of torsion points in (commutative) algebraic groups, has developed into rich and deep theories. Several problems were raised also concerning algebraic relations among torsion elements, as for instance in well-known (former) conjectures by Manin-Mumford and by Lang. In the talk we shall survey especially along this last topic, focusing on more recent finiteness results regarding torsion values attained by sections of families of abelian varieties. Finally, we shall briefly mention some applications.