Liudmila Sabinina, UAEM Cuernavaca(México) On pro-*p* torsion Moufang loops.

Unprecisely spoken a loop is a "non-associative group". The classical example of a Moufang loop is given by the octonians. There is a known connection between groups and loops which was established by R. Baer (1939). G. Glauberman has observed that in the case of a Moufang loop this leads to the notion of a group with triality, that is a group G with an action of $S_3 = \langle \sigma, \rho | \sigma^2 = \rho^3 = id, \sigma\rho\sigma = \rho^2 \rangle$ such that the law

$$(x^{-1}x^{\sigma})(x^{-1}x^{\sigma})^{\rho}(x^{-1}x^{\sigma})^{\rho^{2}} = 1$$

holds.

Recently this approach has been used to solve some fundamental problems in the theory of Moufang loops like Lagrange's and Sylow's theorem for finite Moufang loops by A. Grishkov and others.

There is a famous theorem of E. Zelmanov asserting that pro-p torsion groups are locally finite. In my talk I intend to speak about the analog of this theorem for Moufang loops.