

If P is a parabolic subgroup of a group G with a split spherical BN-pair, it is well known that there is a Levi decomposition of the form $P = LU$ with Levi factor L and unipotent radical U . In order to describe U , the literature usually refers to unipotent subgroups of linear algebraic groups or to root groups in Moufang buildings. In joint work with my student Tim Emerick, we proved that if the split BN-pair is of irreducible rank at least 2, U can be characterized in terms of abstract group theory as the (modulo the center of G) maximal normal nilpotent subgroup of P . The main parts of this proof are geometric (involving buildings), and a corner stone of it is provided by joint work of Tom De Medts, Fabienne Haot, Katrin Tent, and Hendrik Van Maldeghem who proved this result for the case that $P = B$ is a Borel subgroup of G .