



Algebraic groups seminar

September 28 (Monday) 13:00, zoom ID 675-315-555

Raimund Preusser (St. Petersburg State University)

**«The subnormal structure of classical-like groups
over commutative rings»**

Let $n > 2$ and (R, Δ) a Hermitian form ring where R is commutative. We prove that if H is a subgroup of the odd-dimensional unitary group $U_{2n+1}(R, \Delta)$ normalised by a relative elementary subgroup $EU_{2n+1}((R, \Delta), (I, \Omega))$, then there is an odd form ideal (J, Σ) such that

$$EU_{2n+1}((R, \Delta), (J, \Sigma) * I^k) < H < CU_{2n+1}((R, \Delta), (J, \Sigma))$$

where $k=12$ if $n=3$ respectively $k=10$ if $n > 3$. As a consequence of this result we obtain a sandwich theorem for subnormal subgroups of odd-dimensional unitary groups.

Everyone is welcome!