On some systems of linear inequalities derived from algebraic groups over number fields.

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Three years ago, in this same series of workshops, the speaker announced that any anisotropic torus over any number field is obtained as a quotient group of the defining affine group scheme of a neutral Tannakian category of equivalence classes of semi-stable systems of linear inequalities of slope zero. Recently, he has extended the result to arbitrary algebraic groups over an arbitrary number field which is densely generated by tori, whether it is anisotropic or not.

In this talk, the speaker explains his result and its limitations through a few examples of systems of linear inequalities.