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# Oberseminar Zahlentheorie und Arithmetische Geometrie

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## "Cayley groups"

I will start the talk from the classical "Cayley transform" for the special orthogonal group  $SO(n)$  defined by Arthur Cayley in 1846. A connected linear algebraic group  $G$  over  $\mathbb{C}$  is called a *Cayley group* if it admits a *Cayley map*, that is, a  $G$ -equivariant birational isomorphism between the group variety  $G$  and its Lie algebra  $\text{Lie}(G)$ . For example,  $SO(n)$  is a Cayley group. A linear algebraic group  $G$  is called *stably Cayley* if  $G \times S$  is Cayley for some torus  $S$ . I will consider semisimple algebraic groups, in particular, simple algebraic groups. I will describe classification of Cayley simple groups and of stably Cayley semisimple groups. (Based on joint works with Boris Kunyavskii and others.)

See also this answer: <http://mathoverflow.net/a/101343/4149>

Donnerstag, 04.05.2017  
ab 12:00 Uhr, a410  
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie  
und Diskrete Mathematik