

1163-16-1220 **Mátyás Domokos*** (domokos.matyas@renyi.hu), Alfréd Rényi Institute of Mathematics,
Reáltanoda utca 13-15., Budapest, 1053, Hungary. *Computing in the ring of generic 3×3
skew-symmetric matrices.*

The ring of generic $n \times n$ skew-symmetric matrices is a noncommutative associative algebra. It appears naturally in the study of polynomial identities of representations of simple Lie algebras. In the special case $n = 3$ a precise combinatorial description of this ring is possible, thanks to its close relation to a commutative ring, whose structure is well known by classical invariant theory.

The talk is based on joint results with Vesselin Drensky. (Received September 15, 2020)