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Federico Scavia*, scavia@math.ubc.ca. *On the Grothendieck ring of algebraic stacks.*

The Grothendieck ring of algebraic stacks was introduced by T. Ekedahl in 2009, following up on work of other authors. It is a generalization of the Grothendieck ring of varieties. For every linear algebraic group G , we may consider the class BG in this ring. It is an interesting problem to compute BG in terms of classes of varieties. There are many similarities with the rationality problem for fields of invariants (Noether's problem). I will give a brief introduction to the Grothendieck ring of stacks, and then state some of my results in the area. (Received September 10, 2020)