1042-14-62   **Hans Schoutens***, Department of Mathematics, Graduate Center CUNY, 365 Fifth Avenue, New York, NY 10016. *Schemic Grothendieck rings.* Preliminary report.

Using the general notion of the Grothendieck ring of a first-order theory, relativized to certain classes of definable isomorphisms, we introduce a generalization of the classical Grothendieck ring of an algebraically closed field. Whereas the latter only contains classes of (reduced, irreducible) varieties, the new Grothendieck ring incorporates the general notion of a scheme, whence its name "schemic Grothendieck ring". A special role in this theory is played by pp-formulae, and I will give an example of a theory without quantifier elimination in which we can nevertheless eliminate the quantifiers in any pp-formula: the theory of dual numbers over an algebraically closed field of characteristic zero. (Received August 06, 2008)