Pure Abstract Algebras over Base Rings

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Research Topics

・Group schemes associated with quadratic forms over base rings
・Exponential maps and Pfaffian in exterior algebras

Research Seeds

My major interest is in algebra: a branch of mathematics concerned with ``qualitative'' aspects, rather than ``quantitative'' aspects measured by real numbers. In more sophisticated nomenclature, the ``qualitative'' are replaced by ``structural'' and probably the ``structures of compositions'' are the subjects of study in algebra.

In mathematics, there are four known fundamental compositions: addition, subtraction, multiplication, and division. My research is worked out ``over base rings,'' in which one should refrain from operating division freely. Roughly speaking, I am an algebraist who cannot operate division.

Furthermore, I consider mathematics to be studied for its own sake and keep a style which can be regarded as ``abstract.'' Abstract mathematics glittered and glowed in the early twentieth century, but it looks rather out of date now. It seems appropriate not to consider me a scientist, much less an active researcher having good research seeds. I advocate against ``concrete'' mathematics, which some people value as the foundation of science and technology.

Related Technology