# Stratified-algebraic vector bundles

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We investigate stratified-algebraic vector bundles on a real algebraic variety $X$. A *stratification* of $X$ is a finite partition of $X$ into Zariski locally closed subvarieties. A topological vector bundle on $X$ is called a *stratified-algebraic vector bundle* if, roughly speaking, its restriction to each stratum of some stratification of $X$ is an algebraic vector bundle on that stratum. It turns out that stratified-algebraic vector bundles have many desirable features of algebraic vector bundles but are more flexible. Recently first significant steps have been made toward real algebraic geometry based on continuous rational functions – called *regulous geometry*. Stratified-algebraic vector bundles can be also regarded as the appropriate class of vector bundles in regulous geometry.