An introduction to algebraic cobordism

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Abstract

Algebraic cobordism, constructed by Fabian Morel and myself, is a cycle-like theory that gives a simultaneous refinement of the Chow ring and algebraic K_0 . Recently, Rahul Pandharipande and I have shown how to give a very simple description of this theory. We will give an introduction to algebraic cobordism and explain its applications to degree formulas, operations on the Chow ring and aspects of Donaldson-Thomas theory for threefolds.