**Mathematical modeling of the stress state of structural elements from composite materials**

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**Abstract.** One of the main ways of scientific and technological progress in construction is the widespread use of new effective materials, ways to increase the performance of concrete. Reinforcement of cement concretes with fibers of various types can reduce shrinkage deformations, increase crack resistance and tensile strength in bending. One of the effective types of fiber is basalt, with the introduction of which the flexural strength of concrete increased by 2.2 times, and the compressive strength by 1.5 times. The use of the numerical modeling method can be used to calculate the bearing capacity of a compressed prism, to calculate a column, statically determined beams and other statically definable structures.

