1067-AD-405   **David A Jordan*** (`djordan@math.mit.edu`), Dept. of Mathematics, MIT, 77 Massachusetts Ave, Rm 2-236, Cambridge, MA 02130, and **Eric Larson**. *On the classification of fusion categories in small dimensions.*

Fusion categories are certain mild generalizations of finite groups, which retain the categorical features of finite group representations, while jettisoning the representations themselves. Just as studying finite groups helps us build intuition for more general constructions in representation theory, studying fusion categories helps us build intuition for higher categories, tensor categories, and their module categories: each of these notions become eminently calculable and concrete in the setting of fusion categories. As an illustration, we will discuss the classification of fusion categories in small dimensions, including joint work with Eric Larson. (Received September 01, 2010)