

HIGHLIGHTS FROM THE CLASSIFICATION OF THE FINITE SIMPLE GROUPS

A first draft of the classification of the finite simple groups was completed in 2004 after decades of intense effort by scores of mathematicians. A project was initiated in 1981 by Daniel Gorenstein and Richard Lyons to produce a set of volumes giving a detailed proof of this classification theorem, resting on a small and explicit set of well-established background results. Lyons and I are continuing this project with the assistance of several collaborators, notably Inna Capdeboscq and Gernot Stroth. Thus far, 8 volumes have been published by the A.M.S. and a 9th volume has been submitted for publication. A total of 12 volumes should complete the project. In this talk, I will describe the logical structure of the entire proof and give some insight into how the final identification is accomplished for most of the finite simple groups.