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Nota di contenuto	Frontmatter -- Contents -- Preface -- Introduction -- Chapter 1. The main theorems -- Chapter 2. Homotopy groups and the chromatic filtration -- Chapter 3. MU-theory and formal group laws -- Chapter 4. Morava's orbit picture and Morava stabilizer groups -- Chapter 5. The thick subcategory theorem -- Chapter 6. The periodicity theorem -- Chapter 7. Bousfield localization and equivalence -- Chapter 8. The proofs of the localization, smash product and chromatic convergence theorems -- Chapter 9. The proof of the nilpotence theorem -- Appendix A. Some tools from homotopy theory -- Appendix B. Complex bordism and BP-theory -- Appendix C. Some idempotents associated with the symmetric group -- Bibliography -- Index
Sommario/riassunto	Nilpotence and Periodicity in Stable Homotopy Theory describes some major advances made in algebraic topology in recent years, centering on the nilpotence and periodicity theorems, which were conjectured by the author in 1977 and proved by Devinatz, Hopkins, and Smith in 1985. During the last ten years a number of significant advances have been made in homotopy theory, and this book fills a real need for an up-to-date text on that topic. Ravenel's first few chapters are written with a general mathematical audience in mind. They survey both the ideas that lead up to the theorems and their applications to homotopy theory. The book begins with some elementary concepts of homotopy theory that are needed to state the problem. This includes such notions as homotopy, homotopy equivalence, CW-complex, and suspension.

Next the machinery of complex cobordism, Morava K-theory, and formal group laws in characteristic  $p$  are introduced. The latter portion of the book provides specialists with a coherent and rigorous account of the proofs. It includes hitherto unpublished material on the smash product and chromatic convergence theorems and on modular representations of the symmetric group.

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