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Nota di contenuto	Front matter -- Contents -- Preface -- C. T. C. Wall's contributions to the topology of manifolds / Cappell, Sylvain / Ranicki, Andrew / Rosenberg, Jonathan -- C. T. C. Wall's publication list / Cappell, Sylvain / Ranicki, Andrew / Rosenberg, Jonathan -- Classification of $(n-1)$ - connected $2n$ -dimensional manifolds and the discovery of exotic spheres / Milnor, John -- Surgery in the 1960's / Novikov, S. P. -- Differential topology of higher dimensional manifolds / Browder, William -- Differentiable structures on manifolds / Lance, Timothy -- The Kervaire invariant and surgery theory / Brown, Edgar H. -- A guide to the classification of manifolds / Kreck, Matthias -- Poincaré duality spaces / Klein, John R. -- Poincaré duality groups / Davis, Michael W. -- Manifold aspects of the Novikov Conjecture / Davis, James F. -- A guide to the calculation of the surgery obstruction groups for finite groups / Hambleton, Ian / Taylor, Laurence R. -- Surgery theory and infinite fundamental groups / Stark, C. W. -- Continuously controlled surgery theory / Pedersen, Erik Kjrer -- Homology manifolds / Mio, Washington -- A survey of applications of surgery to knot and link theory / Levine, Jerome / Orr, Kent E. -- Surgery and C-algebras / Roe, John -- The classification of Aloff-Wallach manifolds and their generalizations / Milgram, R. James -- Elliptic cohomology / Thomas, Charles B.

Surgery theory, the basis for the classification theory of manifolds, is now about forty years old. There have been some extraordinary accomplishments in that time, which have led to enormously varied interactions with algebra, analysis, and geometry. Workers in many of these areas have often lamented the lack of a single source that surveys surgery theory and its applications. Indeed, no one person could write such a survey. The sixtieth birthday of C. T. C. Wall, one of the leaders of the founding generation of surgery theory, provided an opportunity to rectify the situation and produce a comprehensive book on the subject. Experts have written state-of-the-art reports that will be of broad interest to all those interested in topology, not only graduate students and mathematicians, but mathematical physicists as well. Contributors include J. Milnor, S. Novikov, W. Browder, T. Lance, E. Brown, M. Kreck, J. Klein, M. Davis, J. Davis, I. Hambleton, L. Taylor, C. Stark, E. Pedersen, W. Mio, J. Levine, K. Orr, J. Roe, J. Milgram, and C. Thomas.

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