## CONTENTS

Preface	vii
Dedication	ix
Photo Credits	xiii
Acknowledgments	xv
Part 1: Exotic Spheres	
Introduction: How these papers came to be written	1
Further developments	8
On manifolds homeomorphic to the 7-sphere (1956)	11
On the relationship between differentiable manifolds and	
combinatorial manifolds <sup>†</sup> (1956)	19
Sommes de variétés différentiables et structures différentiables	
des sphères (1959)	29
Differentiable structures on spheres (1959)	35
A procedure for killing homotopy groups of differentiable	
manifolds (1961)	47
Differentiable manifolds which are homotopy spheres <sup>†</sup> (1959)	65
Groups of homotopy spheres: I (1963) WITH M. KERVAIRE	89
	123
Differential topology (1964)	123
Part 2: Expository Lectures	
Introduction	143
Further developments	144
Lectures on differential topology <sup>†</sup> (1958)	
NOTES BY J. MUNKRES	145

## CONTENTS

Lectures on differentiable structures <sup>†</sup> (1961)	177
Smooth manifolds with boundary; based on "Variedades"	
diferenciables con frontera" (1961)	
LECTURE NOTES BY H. CÁRDENAS, E. LLUIS, F. RECILLAS,	
AND R. VÁZQUEZ, AS TRANSLATED BY I.E. COLON-ROLDAN	
AND S. SIMANCA	191
AND S. SIMANCA	191
Part 3: Relations with Algebraic Topology	
Introduction	224
Further developments	227
On the parallelizability of the spheres (1958)	,
with R. Вотт	229
Some consequences of a theorem of Bott (1958)	233
On the Whitehead homomorphism $J$ (1958)	239
Bernoulli number, homotopy groups, and a theorem of Rohlin (1960)	200
WITH M. KERVAIRE	243
WITH W. KERVARE	240
Part 4: Cobordism	
Introduction	249
Further developments	254
On the cobordism ring $\Omega^*$ [research announcement] (1958)	255
On the cobordism ring $\Omega^*$ and a complex analogue (1960)	257
Travaux de Milnor sur le cobordisme (1959)	20.
BY RENÉ THOM	275
A survey of cobordism theory (1962)	283
Erratum <sup>†</sup>	291
Spin structures on manifolds (1963)	$\frac{291}{293}$
Remarks concerning spin manifolds (1965)	299
On the Stiefel-Whitney numbers of complex manifolds and of spin	299
	307
manifolds (1965)	307
A concluding amusement: Symmetry breaking	315
Bibliography	319
Index of Symbols	333
Main Index	335
THE THEOR	550

 $^{\dagger}$  Not previously published.