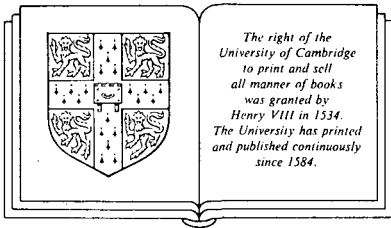
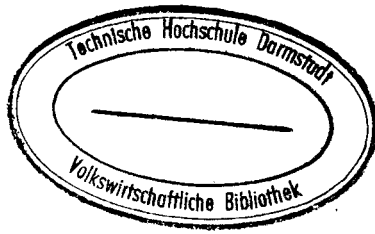


The Shapley value

Essays in honor
of Lloyd S. Shapley

Edited by
Alvin E. Roth



CAMBRIDGE UNIVERSITY PRESS

Cambridge

New York New Rochelle Melbourne Sydney

Contents

<i>Preface</i>	page vii
1 Introduction to the Shapley value <i>Alvin E. Roth</i>	1
I Ancestral papers	
2 A value for n -person games <i>Lloyd S. Shapley</i>	31
3 A method for evaluating the distribution of power in a committee system <i>Lloyd S. Shapley and Martin Shubik</i>	41
II Reformulations and generalizations	
4 The expected utility of playing a game <i>Alvin E. Roth</i>	51
5 The Shapley-Shubik and Banzhaf power indices as probabilities <i>Philip D. Straffin, Jr.</i>	71
6 Weighted Shapley values <i>Ehud Kalai and Dov Samet</i>	83
7 Probabilistic values for games <i>Robert James Weber</i>	101
8 Combinatorial representations of the Shapley value based on average relative payoffs <i>Uriel G. Rothblum</i>	121
9 The potential of the Shapley value <i>Sergiu Hart and Andreu Mas-Colell</i>	127

10	Multilinear extensions of games <i>Guillermo Owen</i>	139
III Coalitions		
11	Coalitional value <i>Mordecai Kurz</i>	155
12	Endogenous formation of links between players and of coalitions: an application of the Shapley value <i>Robert J. Aumann and Roger B. Myerson</i>	175
IV Large games		
13	Values of large finite games <i>Myrna Holtz Wooders and William R. Zame</i>	195
14	Payoffs in nonatomic economies: an axiomatic approach <i>Pradeep Dubey and Abraham Neyman</i>	207
15	Values of smooth nonatomic games: the method of multilinear approximation <i>Dov Monderer and Abraham Neyman</i>	217
16	Nondifferentiable TU markets: the value <i>Jean-François Mertens</i>	235
V Cost allocation and fair division		
17	Individual contribution and just compensation <i>H. P. Young</i>	267
18	The Aumann-Shapley prices: a survey <i>Yair Tauman</i>	279
VI NTU games		
19	Utility comparison and the theory of games <i>Lloyd S. Shapley</i>	307
20	Paths leading to the Nash set <i>Michael Maschler, Guillermo Owen, and Bezalel Peleg</i>	321