

Cambridge University Press 0521791022 - Domain Conditions in Social Choice Theory Wulf Gaertner Table of Contents More information

CONTENTS

Preface and acknowledgements			
1	Introduction	1	
2	Notation, definitions, and two fundamental theorems	11	
3	The existence of collective choice rules under exclusion conditions for finite sets of discrete		
	alternatives	17	
	3.1 The method of majority decision	18	
	3.1.1 The case where the individual		
	preferences are orderings	19	
	3.1.1.1 The method of majority decision		
	is a social welfare function	19	
	3.1.1.2 The method of majority decision		
	is a social decision function	22	
	3.1.1.3 The method of majority decision		
	and order restricted preferences	23	
	3.1.2 The case where the individual		
	preferences are quasi-transitive	24	
	3.1.2.1 The method of majority decision		
	is a social welfare function for		
	quasi-transitive individual	2.4	
	preferences	24	
	3.1.2.2 The method of majority decision		
	is a social decision function of		
	type QT for quasi-transitive	0.0	
	individual preferences	26	
	3.2 Alternative single-stage social decision rules	27	
	3.3 Multi-stage majority decision rules	31	

vii



Cambridge University Press 0521791022 - Domain Conditions in Social Choice Theory Wulf Gaertner Table of Contents More information

Contents

		3.3.1 The case where the individual preferences	
		are orderings	33
		3.3.2 The case where the individual preferences	
		are quasi-transitive	34
		The likelihood of no majority winner	34
	3.5	Simple games	39
		3.5.1 Simple majority games	41
		3.5.2 Strong and proper simple games3.5.3 Proper simple games	43 44
		5.5.5 Proper simple games	44
4	Arr	ovian social welfare functions, nonmanipulable	
	vot	ing procedures and stable group decision	
		ctions	46
	4.1	Domains for Arrow-type social welfare	
		functions and nonmanipulable voting	
		schemes	46
		Robustness of the majority rule	63
	4.3	Maximal domains for strategy-proof voting	
	1 1	procedures	66
	4.4	Stability of group decision rules	70
5	Res	trictions on the distribution of individuals'	
	pre	ferences	76
	5.1	The majority decision rule	76
		5.1.1 Conditions on the distribution of	
		preferences in the original profile	76
		5.1.2 Conditions on the distribution of	
		preferences in the reduced profile	87
	5.2	The design of transitive aggregation	
	- 0	procedures	95
	5.3	Quasi-transitivity of the social preference	0.7
		relation under proper simple games	97
6	The	e existence of social choice rules in	
	<i>n</i> -d	imensional continuous space	99
	6.1	The standard exclusion conditions in	
		continuous space	99
	6.2	Impossibility results for continuous	
		choice rules	101

viii



Cambridge University Press 0521791022 - Domain Conditions in Social Choice Theory Wulf Gaertner Table of Contents More information

Contents

6.3 Possibility results for contractible			
preference spaces	106		
6.4 Discrete vs. continuous and the choice of topology	113		
7 Concluding remarks			
References	131		
Author index			
Subject index			

ix