

Bayesian Implementation

Thomas R. Palfrey

California Institute of Technology, Pasadena, USA

and

Sanjay Srivastava

Carnegie Mellon University, Pittsburgh, Pennsylvania, USA

A volume in the Organization Theory
and Allocation Processes section

edited by

A. Postlewaite

University of Pennsylvania, Philadelphia, USA



harwood academic publishers

Switzerland · Australia · Belgium · France · Germany · Great Britain ·
India · Japan · Malaysia · Netherlands · Russia · Singapore · USA



Contents

<i>Introduction to the Series</i>	vii
1. Introduction	1
2. A General Model	6
A. Environments	6
B. Mechanisms and Equilibrium	9
C. The Revelation Principle and Incentive Compatibility	9
D. Efficiency	13
E. Implementation	14
F. Examples	16
3. Characterizing Implementable Allocation Rules	23
A. Diffuse Information Structures	23
B. Non-diffuse Information Structures	37
C. Bibliographic Note: Implementation with Complete Information	44
4. Applications	51
A. Pure Exchange Environments	51
B. Efficient Allocation Rules	55
C. Bilateral Monopoly	60
D. Incentive Contracting with Multiple Agents	62
E. Public Goods	65
5. Preplay Communication and Renegotiation	73
A. Issues of Commitment and Control	73
B. Implementation with Preplay Communication	74
C. Renegotiation-proof Implementation	82
6. Other Topics	88
A. Implementation with Refinements	90
B. Virtual Implementation	93
<i>References</i>	98
<i>Index</i>	105