

"This superb compendium of all aspects of matching markets is an excellent text for advanced students and a definitive reference that integrates economic and computational aspects of market design."

Robert Wilson, The Adams Distinguished Professor of Management, Emeritus, Stanford University

"Matching markets are among the earliest points of contact between the theories of economics and computation. Decades before the advent of Algorithmic Game Theory, great economists articulated discrete algorithmic problems involving agents, goods, and preferences and invented efficient algorithms for their solutions. In the era of the Internet, the importance of the subject has exploded, and so has the convergence of computational and economic research on it. This comprehensive collection of expertly written articles exhausting the many facets of this important topic is destined to influence its further evolution, and will be a quintessential source for students and researchers."

Christos H. Papadimitriou, Donovan Family Professor of Computer Science, Columbia University

"A multi-authored textbook is a challenging project, all the more so on a deeply interdisciplinary topic. Starting from the mathematical foundations and developing into sophisticated applications and empirics, all along supplemented by a rich menu of exercises, this volume makes the state of the art of market design equally accessible to the beginner students and advanced researchers."

Hervé Moulin, The Donald J Robertson Professor of Economics, University of Glasgow

"The modern digital economy depends crucially on the performance of matching-based markets for goods and services ranging from energy to healthcare to cloud services and beyond. So it is wonderful to have a book that develops the beautiful and rich algorithmic and game theoretic foundations of these markets, taking us all the way to the research frontier. I can't wait to teach a course on online and matching-based market design based on this book!"

Anna Karlin, Professor, and Bill and Melinda Gates, Chair of Computer Science & Engineering, University of Washington

"The definitive handbook for a beautiful scientific area that combines elegant theory with a variety of practical applications, economics with computer science, and classical results with fierce ongoing research."

Noam Nisan, Professor of Computer Science and Engineering, Hebrew University of Jerusalem

Cover image: Gigi Scaria, Look up–Look down
Sculptural installation, Residency at Utne, Norway 2016.
Courtesy of Gigi Scaria

Designed by EMC Design Ltd

**Echenique
Immorlica
Vazirani**

**Online and Matching-Based
Market Design**

 **CAMBRIDGE**
UNIVERSITY PRESS

ISBN 978-1-108-83199-4



9 781108 831994 >

CAMBRIDGE

Online and Matching-Based Market Design

Edited by **Federico Echenique,
Nicole Immorlica, Vijay V. Vazirani**

FOREWORD BY ALVIN E. ROTH

