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Quantum Theory and Local Causality

Springer

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Preface

This book summarizes the results of research the authors have pursued in the past several years on the problem of implementing Bell's notion of local causality in algebraic quantum field theory and relating it to such fundamental concepts as the Common Cause Principle, Bell's inequalities, and the EPR scenario. These results have been presented at various workshops and department seminars. We wish to thank the audience and the members of the *Budapest Research Group*, the *Budapest-Kraków Research Group*, the *Center for Philosophy of Science at the University of Pittsburgh*, the *Munich Center for Mathematical Philosophy*, the *Nagoya Winter Workshop Series*, the *Sidney Edelstein Center at the Hebrew University*, the *Sigma Club at the London School of Economics*, and the *Southern California Philosophy of Physics Group* for the valuable discussions from which the present book greatly benefited.

The results contained in this book have been published by the authors in a number of papers. The authors gratefully acknowledge permissions to reuse copyrighted material. A substantial part of the main text and all figures are reproduced from these papers:

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