

TABLE OF CONTENTS

Preface – Instead of a “Festschrift”	1
Anton Amann, Harald Atmanspacher, and Ulrich Müller-Herold	

The Primas Effect: On Quanta and Beyond	3
Ulrich Müller-Herold	

Hans Primas and Nuclear Magnetic Resonance	9
Richard R. Ernst	

Fragments of an Algebraic Quantum Mechanics Program for Theoretical Chemistry	39
Anton Amann and Ulrich Müller-Herold	

Matter

C*- and W*-Algebras of Observables, Their Interpretations, and the Problem of Measurement	57
Anton Amann and Harald Atmanspacher	

Temporal Nonlocality	83
Günter Mahler	

Macroscopic Purification of States by Interactions	105
H. Narnhofer and W. Thirring	

Macroscopic Quantum Phenomena at the SQUID	119
Alfred Rieckers	

The Geometry of Quantum Probabilities	151
Karl Gustafson	

Probability and Quantum Dynamics	167
E.C.G. Sudarshan	

Perspectives on the Molecular Microworld	193
Dennis H. Rouvray	
The Science of Matter: Fascination and Limits	213
Charles P. Enz	

Mind

Holism	233
Abner Shimony	
Concepts of Reality: Primas' Nonstandard Realism	249
Bernard d'Espagnat	
Relative Onticity	273
Harald Atmanspacher and Fred Kronz	
Rationalism, Determinism, Freedom	299
Vittorio Hösle	
Cuts and Symbols	329
Wilhelm Just	
Reflections on the Foundations of Quantum Theory	367
Carl Friedrich von Weizsäcker	

Appendices

Publications by Hans Primas (until 1998)	373
List of Contributors	381
Index	383