

CONTENTS

Preface	vii
Introduction	ix
Part One: Preliminary Explorations: What, Why, How?	1
1. Remarks About the Program for a Formalized Epistemology <i>Francis Bailly</i>	3
2. Formalized Epistemology in a Philosophical Perspective <i>Hervé Barreau</i>	9
3. Formalized Epistemology, Logic, and Grammar <i>Michel Bitbol</i>	21
4. Epistemic Operations and Formalized Epistemology: Contribution to the Study of the Role of Epistemic Operations in Scientific Theories <i>Michel Paty</i>	37
5. Mathematical Physics and Formalized Epistemology: Debate with Jean Petitot <i>Interlocutors: Francis Bailly, Michel Bitbol, Mioara Mugur-Schächter, Vincent Schächter</i>	73
6. On the Possibility of a Formalized Epistemology <i>Robert Valleée</i>	103
Part Two: Constructive Contributions	107
7. Quantum Mechanics <i>Versus</i> a Method of Relativized Conceptualization <i>Mioara Mugur-Schächter</i>	109
8. Mathematical and Formalized Epistemologies <i>Robert Vallée</i>	309
9. Ago-Antagonistic Systems <i>Élie Bernard-Weil</i>	325

Part Three: Further Explorations	349
10. Complexity of the “Basic Unit” of Language: Some Parallels in Physics and Biology <i>Evelyne Andreevsky</i>	351
11. About the Emergence of Invariances in Physics: from “Substantial” Conservation to Formal Invariance <i>Francis Bailly</i>	369
12. Form and Actuality <i>Michel Bitbol</i>	389
13. To Suspended Informal Time <i>Michel Paty</i>	431
14. The Constructed Objectivity of the Mathematics and the Cognitive Subject <i>Giuseppe Longo</i>	433
15. On Complexity <i>Vincent Schächter</i>	463
Appendix: Biographical Notes	487
Author and Subject Index	491