

Logic, Methodology and Philosophy of Science

Proceedings of the
Fifteenth International Congress

Hannes Leitgeb
Ilkka Niiniluoto
Päivi Seppälä
Elliott Sober
Editors



7	Intensional logic before Leibniz	137
	PAUL THOM	
B	General Philosophy of Science	153
8	On some French probabilists of the twentieth century	155
	MARIA CARLA GALAVOTTI	
9	Patrick Suppes: from logic to probabilistic metaphysics	175
	ANNE FAGOT-LARGEAULT	
10	Logical empiricist reconstructions of theoretical knowledge	189
	WILLIAM DEMOPOULOS	
11	How values can influence science without threatening its integrity	207
	SVEN OVE HANSSON	
C	Philosophical Issues of Particular Disciplines	223
12	Prospects for an integrated history and philosophy of composition	225
	HASOK CHANG	
13	A new look at the history of science	243
	ANA BARAHONA	
14	Comparing causes	261
	ARNAUD POCHEVILLE, PAUL E. GRIFFITHS AND KAROLA STOTZ	
15	What is action-oriented perception?	287
	ZOE DRAYSON	
16	Philosophy of science in practice	301
	MIEKE BOON	
17	Patchwork narratives for tumour heterogeneity	323
	GIOVANNI BONIOLO	

D	CLMPS 2015 conference theme: Models and Modelling	347
	18 Models and modeling in formal epistemology	349
	<small>ELEONORA CRESTO</small>	
	19 Unrealistic models, mechanisms, and the social sciences	367
	<small>HAROLD KINCAID</small>	
	20 Modelling failure	381
	<small>USKALI MÄKI</small>	
E	International Council for Science (ICSU) special session: Future Earth	401
	21 Transformative research for a sustainable future Earth	403
	<small>GORDON McBEAN AND HEIDE HACKMANN</small>	
	22 Biodiversity and triage	421
	<small>MARK COLYVAN</small>	
	Index	436

Editors' preface

This volume contains papers based on invited lectures from the 15th International Congress of Logic, Methodology and Philosophy of Science, in Helsinki, Finland, on August 3-8, 2015. The CLMPS 2015 was held under the auspices of the International Union of History and Philosophy of Science (IUHPS), Division of Logic, Methodology, and Philosophy of Science (DLMPS), by the invitation of the Finnish National Committee for the Philosophy of Science, and hosted by the University of Helsinki. We have included in this book the opening statements by the representatives of the DLMPS, and the Local Organizing Committee.

In the traditional way, the Congress included six plenary lectures, 39 invited papers and 476 contributed papers distributed in 17 sections, and 172 papers in special symposia (including affiliated meetings and commission sessions). A complete list of the plenary lectures and invited papers appears on pages ix - xiii. This book includes 23 of the invited papers. Abstracts of all papers of the CLMPS, together with abstracts of papers of the Logic Colloquium 2015, were published in the Book of Abstracts in 2015 (clmps.helsinki.fi/materials/CLMPS_LC_bookofabstracts29.7.2015.pdf).

The process of editing the manuscripts into a camera ready version was led in Helsinki by Päivi Seppälä, the Congress Secretary of the CLMPS. Her effective team consisted M.Soc.Sc. Juho Pääkkönen, B.Phil. Leena Tulkki, and Ms. Hanna Pankka. We are grateful to all of them for their careful work. We also express our gratitude to King's College Publications and Managing Director Jane Spurr who wished to continue the tradition of publishing the Proceedings of the CLMPS in their series.

Munich, Helsinki, and Madison, WI, January 2017
Hannes Leitgeb, Ilkka Niiniluoto, Päivi Seppälä, Elliott Sober