

The Dialogue between Sciences,
Philosophy and Engineering.
New Historical and Epistemological
Insights
Homage to Gottfried W. Leibniz 1646-1716

Edited by
Raffaele Pisano,
Michel Fichant,
Paolo Bussotti,
Agamenon R. E. Oliveira,
with a Foreword by
Eberhard Knobloch

CONTENTS

| | |
|--|------|
| Foreword | vii |
| Eberhard Knobloch (Germany) | |
| Introduction | xi |
| 1646-1716. An Interdisciplinary Tribute to Gottfried Wilhelm von Leibniz' Anniversary | |
| Raffaele Pisano (France) and Paolo Bussotti (Italy) | |
| Acknowledgements | xvii |
| Remarks for the reader | xix |
| List of Contributors | xxi |
| Leibnizian Intelligibility | 1 |
| Jacob Archambault (USA) | |
| Leibniz's Foundation of Arithmetic and its Influence on Frege | 21 |
| Mattia Brancato (Italy) | |
| Historical and Philosophical Details on Leibniz's Planetary Movements as <i>Physical-Structural Model</i> | 49 |
| Paolo Bussotti (Italy) and Raffaele Pisano (France) | |
| Leibniz and the Impossibility of Squaring the Circle | 93 |
| Davide Crippa (Czech Republic) | |
| A Scientific Re-assessment of Leibniz's Principle of Sufficient Reason | 121 |
| Antonino Drago (Italy) | |
| Leibniz's Theory of Series | 141 |
| Giovanni Ferraro (Italy) | |
| Prospects for an Idealist Interpretation of Leibniz's Dynamics | 169 |
| Glenn A. Hartz (USA) | |
| Asymmetric, Pointless and Relational Space: Leibniz's Legacy Today | 179 |
| Joseph Kouneiher (France) | |

| | |
|---|-----|
| We Live in the Best of Possible Worlds: Leibniz's Insight Helps to Derive Equations of Modern Physics Vladik Kreinovich (USA) and Guoqing Liu (China) | 207 |
| A Background Condition for Analysis Montgomery Link (USA) | 227 |
| From Leibniz to the Information Age. Leibniz's deep Footprints in Wiener's Scientific Path Leone Montagnini (Italy) | 255 |
| Leibniz and the Sciences of Engineering Agamenon Rodrigues Eufrásio Oliveira (Brazil) | 287 |
| <i>Logica Mathematica: Mathematics as Logic in Leibniz</i> Anne Michel-Pajus (France) and David Rabouin (France) | 309 |
| Describing Reality: Bernoulli's Challenge of the Catenary Curve and its Mathematical Description by Leibniz and Huygens Miguel Palomo (Spain) | 331 |
| The Dialectics of Recognition in Leibniz's <i>Theodicy</i> and a Possible Route to Modern Political Thought Ana-Maria Pascal (UK) | 341 |
| The Equivalence of Hypotheses and Leibnizian <i>Vires</i> Tzuchien Tho (Italy) | 363 |
| Leibniz's Defence of Heliocentrism Friedel Weinert (UK) | 381 |
| Index | 403 |