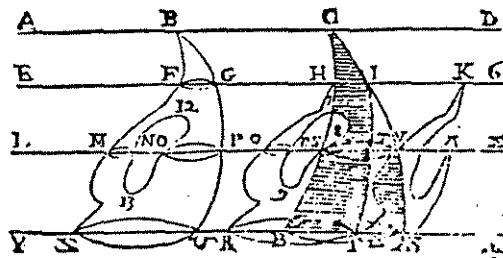


PROCEEDINGS OF THE

Canadian Society for History
and Philosophy of Mathematics

Société Canadienne d'Histoire
et Philosophie des Mathématiques



Volume 12
Twenty-Fifth Annual Meeting

University of Toronto
Toronto, Ontario
July 15-17, 1999

Edited by

J.J. Tattersall
Providence College
Providence, Rhode Island

Proceedings of the CSHPM/SCHPM 25th Annual Meeting
University of Toronto
July 15-17, 1999

Table of Contents

Preface

Special Session/Session Spéciale
History of Applied Mathematics

Jesper Lützen (University of Copenhagen)
*Mechanistic Images in Geometric Form:
Hertz's Principles of Mechanics* 1

Regular Session/Session Ordinaire
Philosophy of Mathematics

Richard Arthur (Middlebury College)
*The Transcendentality of π and Leibniz's Philosophy
of Mathematics* 13

David G. Lavery (University of Western Ontario)
What is Mathematics About? 20

David Boutilier (University of Western Ontario)
*The Prospects for Intuitionistic Conceptions of
Mathematics* 28

Gregory Lavers (University of Western Ontario)
*Set Theory and Category Theory as Foundations
for Mathematics* 38

Miriam Lipsschütz-Yevick (Rutgers University)
A Sequel to Semiotic Impediments to Formalization (1) 53

Regular Session/Session Ordinaire
Mathematics Before 1700

Edward L. Cohen (University of Ottawa) <i>Calendars of the Dead-Sea-Scroll Sect</i>	59
Ibrahim Garro (University of Toronto) <i>Limits, Asymptotes, and Infinities, Old and New</i>	72

Regular Session/Session Ordinaire
History of Analysis

Rüdiger Thiele (University of Leipzig) <i>Early Calculus of Variations and the Concept of the Function</i>	98
Gregory H. Moore (McMaster University) <i>The Influence of Klein's Erlanger Programm: A Reappraisal</i>	112
Erwin Kreyszig (Carleton University) <i>On the Evolution of Engineering Mathematics</i>	122

Regular Session/Session Ordinaire
History of Algebra

Muriel Seltman (University of Greenwich) <i>Thomas Harriot and the Solution of the Cubic</i>	129
Adrian Rice (Randolph Macon College) <i>Extending Euler: A Little-Known Episode in the Prehistory of Quaternions</i>	143
Christopher Baltus (SUNY at Oswego) <i>Issues in the Early History of the Fundamental Theorem of Algebra</i>	164
Francine F. Abeles (Kean University) <i>Betting Round aka Pari-Mutual Betting: A Note on C.L. Dodgson</i>	176
Jacob M. Appleman (Queensborough Community College) <i>The Life of Emil Post and His "Polyadic Groups"</i>	184

Regular Session/Session Ordinaire
History of Applied Mathematics

Robert Thomas (University of Manitoba) <i>What Phenomena Did Euclid Write About?</i>	202
Roger Godard (Royal Military College) and P. Crépel (Université de Lyon) <i>An Historical Study of the Median</i>	207
Tinne Hoff Kjeldsen (University of Roskilde) <i>The Origin of Nonlinear Programming</i>	219
Michiyo Nakane (Seijo University) <i>Some Aspects of Mathematisation in the Construction of the Hamilton-Jacobi Theory.</i>	238
Steven N. Shore (Indiana University South Bend) <i>Blue Sky and Hot Piles: The Evolution of Radiative Transfer Theory from Atmospheres to Nuclear Reactors</i>	248

Regular Session/Session Ordinaire
History of Mathematics

June Barrow-Green (The Open University) <i>Mathematics in Britain 1860-1940: The BRITMATH Database on the World Wide Web</i>	271
David E. Zitarelli (Temple University) <i>An Outline of the History of Mathematics in America.</i>	286
Duncan J. Melville (St. Lawrence University) <i>Interpreting Texts in a History of Mathematics Class</i>	298
John A. Fossa (Universidade Federal do Rio Grande do Norte) <i>An Introduction to Platonic Mathematics</i>	307