Church's Thesis After 70 Years
Contents

Preface ................................................................. 7
Darren Abramson
  CHURCH’S THESIS AND PHILOSOPHY OF MIND ............... 9
Andreas Blass, Yuri Gurevich
  ALGORITHMS: A QUEST FOR ABSOLUTE DEFINITIONS ..... 24
Douglas S. Bridges
  CHURCH’S THESIS AND BISHOP’S CONSTRUCTIVISM ...... 58
Selmer Bringsjord, Konstantine Arkoudas
  ON THE PROVABILITY, VERACITY, AND AI-RELEVANCE
  OF THE CHURCH–TURING THESIS ......................... 66
Carol E. Cleland
  THE CHURCH–TURING THESIS. A LAST VESTIGE OF
  A FAILED MATHEMATICAL PROGRAM ..................... 119
B. Jack Copeland
  TURING’S THESIS ............................................ 147
Hartmut Fitz
  CHURCH’S THESIS AND PHYSICAL COMPUTATION .......... 175
Janet Folina
  CHURCH’S THESIS AND THE VARIETY OF
  MATHEMATICAL JUSTIFICATIONS ......................... 220
Andrew Hodges
  DID CHURCH AND TURING HAVE A THESIS ABOUT
  MACHINES? ................................................ 242
Leon Horsten
  FORMALIZING CHURCH’S THESIS ....................... 253
Stanislaw Krajewski
  REMARKS ON CHURCH’S THESIS AND GÖDEL’S
  THEOREM ............................................. 269
CONTENTS

Charles McCarty
THESIS AND VARIATIONS ......................... 281

Elliott Mendelson
ON THE IMPOSSIBILITY OF PROVING THE
“HARD-HALF” OF CHURCH’S THESIS .......... 304

Roman Murawski, Jan Woleński
THE STATUS OF CHURCH’S THESIS .......... 310

Jerzy Mycka
ANALOG COMPUTATION AND CHURCH’S THESIS .... 331

Piergiorgio Odifreddi
KREISEL’S CHURCH ......................... 353

Adam Olszewski
CHURCH’S THESIS AS FORMULATED BY CHURCH —
AN INTERPRETATION ....................... 383

Oron Shagrir
GÖDEL ON TURING ON COMPUTABILITY ........ 393

Stewart Shapiro
COMPUTABILITY, PROOF, AND OPEN-TEXTURE .... 420

Wilfried Sieg
STEP BY RECURSIVE STEP: CHURCH’S ANALYSIS OF
EFFECTIVE CALCULABILITY ............... 456

Karl Svozil
PHYSICS AND METAPHYSICS LOOK AT COMPUTATION .. 491

David Turner
CHURCH’S THESIS AND FUNCTIONAL PROGRAMMING .. 518

Index ........................................... 545