

KEPLER

MAX CASPAR

A towering figure in intellectual history and one of the fathers of modern astronomy, the great mathematician Johannes Kepler (1571–1630) is best known for his discovery of the three laws of planetary motion, which paved the way for a dynamic explanation of the heavenly phenomena. At a time when the Ptolemaic view still prevailed in official circles, Kepler undertook to prove the truth of the Copernican world view and through exceptional perseverance and force of intellect achieved that goal.

His epochal intellectual feats are completely and thoroughly described in this splendid work, considered the definitive biography of Kepler. Drawing on a wealth of primary sources, the author presents a fascinating and erudite picture of Kepler's scientific accomplishments, his public life (work with Tycho Brahe, the Danish astronomer; mathematical appointments at Graz, Prague and Linz; pioneering work with calculus and optics, and more) and his personal life: childhood and youth, financial situation, his mother's trial as a witch, his own lifelong fear of religious persecution, his difficulties in choosing one of eleven possible young women as his second wife, and more, through his last years in Ulm and death in Regensburg.

Until his death in 1956, Professor Max Caspar was the world's foremost Kepler scholar. He had spent over two-thirds of his life assembling, cataloging, describing, analyzing and editing Kepler's works. To this biography he brought tremendous learning and passionate enthusiasm for his subject, creating an unsurpassed resource on the life and work of one of history's greatest scientific minds. Originally published in German and superbly translated into English by C. Doris Hellman, Kepler will fascinate scholars and general readers alike.

Unabridged and enlarged Dover (1993) republication of the edition published by Abelard-Schuman, London, 1959 (original German version published in 1948).

See every Dover book in print at
www.doverpublications.com



\$19.95 USA

PRINTED IN THE USA

ISBN-13: 978-0-486-67605-0

ISBN-10: 0-486-67605-6



5 1 9 9 5

9 780486 676050

TABLE OF CONTENTS

INTRODUCTION TO THE DOVER EDITION	3
EDITOR'S FOREWORD	5
PREFACE	13

INTRODUCTION

1. <i>Philosophic and scientific thought in the Renaissance</i>	17
2. <i>Revival of astronomical research; Copernicus</i>	20
3. <i>Religious conflict in the sixteenth century</i>	23

I. CHILDHOOD AND YOUTH 1571-1594

1. <i>Birth and ancestry</i>	29
2. <i>Weil der Stadt</i>	32
3. <i>Kepler's family</i>	34
4. <i>First schooling</i>	36
5. <i>The seminary</i>	38
6. <i>The Stift in Tübingen</i>	41
7. <i>Studies and teachers at the university</i>	44
8. <i>Summons to Graz</i>	50

II. DISTRICT MATHEMATICIAN AND TEACHER IN GRAZ 1594-1600

1. <i>Church politics in Graz</i>	53
2. <i>The Stiftsschule</i>	54
3. <i>The district mathematician's first calendars</i>	58
4. <i>Mysterium Cosmographicum</i>	60
5. <i>Marriage</i>	71
6. <i>The beginning of the Counter Reformation</i>	77

Table of Contents

7. Further scholarly work; studies connected with the notion of "world harmony"	85
8. Kepler's oppressing situation and his visit to Tycho Brahe ..	96
9. Plans and work after Kepler's return	108
10. Sharpened Counter Reformation measures and exile from Graz	111

III. IMPERIAL MATHEMATICIAN IN PRAGUE 1600-1612

1. The first months	116
2. Tycho Brahe's death and Kepler's appointment as imperial mathematician	121
3. Astronomia Nova; and the second and first planet laws	123
4. Astronomia Pars Optica	142
5. The religious situation in Prague	146
6. Emperor Rudolph II and Kepler	149
7. The New Star of 1604	154
8. Financial worries	157
9. Kepler's patrons and friends	159
10. Home life	173
11. Tabulae Rudolphinae; Ephemerides; Antwort auf Rösolini Discurs; Tertius Interveniens	178
12. Political disorders; Kepler on the watch for a new place to work	186
13. Galileo's first discoveries with the telescope	189
14. Dissertatio cum Nuncio Sidereo	192
15. Dioptrice	198
16. The unfortunate year, 1611	202
17. Rejected by the Württemberg theologians; successful negotiations with Linz; death of Frau Kepler; departure from Prague	204

IV. DISTRICT MATHEMATICIAN IN LINZ 1612-1626

1. <i>Kepler in a new intellectual situation and official position</i>	209
2. <i>Exclusion from communion</i>	213
3. <i>Second marriage and household</i>	220
4. <i>The year of Christ's birth; the Gregorian calendar</i>	227
5. <i>Stereometria Doliorum and other scholarly work</i>	233
6. <i>Kepler's mother's witch trial</i>	240
7. <i>Last unavailing attempt in Tübingen to obtain admission to communion</i>	258
8. <i>Harmonice Mundi; and the third planet law</i>	264
9. <i>Controversy with Robert Fludd</i>	290
10. <i>Epitome Astronomiae Copernicanae</i>	293
11. <i>Calendars and comets</i>	300
12. <i>Wartime in Linz; the Counter Reformation</i>	304
13. <i>Tabulae Rudolphinae</i>	308
14. <i>Siege of Linz and Kepler's departure</i>	318

V. LAST YEARS IN ULM AND SAGAN AND DEATH IN REGENSBURG 1626-1630

1. <i>Ulm and the Tabulae Rudolphinae</i>	321
2. <i>In search of a new dwelling place: Landgrave Philip of Hesse, Emperor Ferdinand</i>	328
3. <i>Disagreement with the Jesuits</i>	334
4. <i>Kepler and Wallenstein</i>	338
5. <i>Sagan</i>	345
6. <i>Somnium</i>	351
7. <i>Jakob Bartsch</i>	353

Table of Contents

8. <i>Regensburg and Kepler's death</i>	355
9. <i>The fate of Kepler's family and manuscripts</i>	361

REVIEW AND EVALUATION

1. <i>Kepler's physical constitution and his character</i>	368
2. <i>Kepler's view of the world and his doctrine of knowledge</i> ..	376
3. <i>Kepler's cosmography</i>	384

THE PORTRAITS	389
BIBLIOGRAPHICAL REFERENCES	391
BIBLIOGRAPHICAL CITATIONS	398
INDEX OF NAMES	432
INDEX OF SUBJECTS AND PLACES	437