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Nota di contenuto Humans and the Sky -- Effects of Celestial Motions on Human Activities

-- Ancient Models of the Universe -- Turning of the Heavens -- A Spherical Earth -- Journey of the Sun Among the Stars -- A Two-Sphere Universe -- Dance of the Moon -- The Calendars -- The Wanderers --The Mystery of Uneven Seasons -- Size of the Earth -- Cycles upon Cycles -- Cosmology According to Aristotle -- The Post-Ptolemy World -- The Copernicus Revolution -- Does the Earth Really go Around the Sun? -- The Legacy of Copernicus -- A New Star in the Sky -- The Imperfect Heaven -- Unification of Heaven and Earth -- Epilogue --Further reading -- Appendix I Longitudes and latitudes of cities --Appendix II Astronomical measurements -- Appendix III How long does it take for the Sun to rise and set? -- Appendix IV What is the length of the day? -- Appendix V What time is noon? -- Appendix VI How far can we see? -- Appendix VII Decrease of the obliquity of the ecliptic --Appendix VIII Synodic and sidereal periods -- Appendix IX Modern evidence onf the roundness of the Earth -- Appendix X Modern evidence of the rotation and revolution of the Earth -- Appendix XI

Sommario/riassunto

Escape from Earth -- Appendix XII Travel to the planets -- Review exercises -- Laboratory exercises -- Glossary.

If you have ever wanted to understand the basic principles of astronomy and celestial movements, you should read this book. Using pictures of the sky observed from different places on Earth, as well as drawings of ancient astronomical methods and tools, Prof. Sun Kwok tells this story in an entertaining and fascinating way. Since the beginning of human civilization, people have wondered about the structure of the cosmos and our place in the Universe. More than 2,000 years ago, our ancestors knew that the seasons were unequal, the Earth was an unattached object floating in space, and stars existed that they could not see. From celestial observations, they concluded that the Earth was round. Using simple tools and mathematics, ancient astronomers accurately determined the sizes of the Earth and Moon, the distance to the Moon, and the lengths of the months and year. With a clever device called the armillary sphere. Greek astronomers could predict the times of sunrise and sunset on any day of the year, at any place on Earth. They developed sophisticated mathematical models to forecast Mars' motions hundreds of years into the future. Find out how ancient observers achieved these remarkable feats. With minimal use of mathematics, this book retraces the footsteps of our ancestors, explains their intellectual journeys in simple terms, and explores the philosophical implications of these discoveries. .