# Eyes on the Sky The story of telescopes

Biman Nath



# Contents

Forewordvii	
1.	Astronomy before telescopes1
2.	The invention of telescope13
3.	Early telescopes (17th century)20
4.	Beyond the solar system: 18th century telescopes34
5.	The birth of astrophysics: 19th century45
6.	Telescopes at the end of 19th century62
7.	Early 20th century telescopes69
8.	Modern (and future) telescopes
9.	Radio telescopes : I
10.	Radio telescopes : II
11.	Spaceborne telescopes — I 115
12.	Spaceborne telescopes —II 129
13.	Cosmic ray and gravity wave telescopes: modern astronomy 144
	Index

## Eyes on the Sky: The story of telescopes

1609 was a watershed year in the history of science. Spectacle makers found that a certain combination of lenses made distant objects appear closer. Galileo Galilei made a telescope of his own and looked at the stars with it. And what he found changed the way mankind thought about Nature.

Since then astronomers have built bigger and better telescopes, to view the universe in ways never thought possible before, in different 'colours' of light, visible, infrared, radio, X-ray and so on, and even with the help of particles. Now they are even building telescopes to detect waves in space-time.

This book chronicles the history of telescopes in easy language and with many illustrations. It explains what drives astronomers to build big telescopes, how engineers help them with technological innovations and how the findings with these telescopes have enriched our mind.

### About the author



Biman Nath is an astrophysicist at the Raman Research Institute, Bangalore. He received his PhD in astronomy from the University of Maryland, USA, and he does research on cosmology and the evolution of galaxies. He has written several popular science articles and books.

ISBN No. 978-81-7480-196-8

Rs. 140



#### **VIGYAN PRASAR**

(Department of Science & Technology, Govt. of India) A-50, Institutional Area , Sector-62. NOIDA (201307) Phone: 91-120-240 4430,35 Fax: 91-120-2404437

e-mail: info@vigyanprasar.gov.in Website: http://www.vigyanprasar.gov.in