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Nota di contenuto	Frontmatter -- Foreword -- Acknowledgements -- Contents -- Part I. The advent of long duration, ultra-high precision photometry of stars from space -- Introduction -- I.1 The general framework -- I.2 Seeds take root in Europe -- I.3 The CoRoT story -- I.4 Across the Atlantic: Canada's MOST -- I.5 In the United States: the long way to Kepler -- Part II. The CoRoT legacy data -- Introduction -- II.1 The CoRoT observations -- II.2 Description of processes and corrections from observation to delivery -- II.3 Exposurebased algorithm for removing systematics out of the CoRoT light curves -- II.4 The "ready to use" CoRoT data -- II.5 Where to find the CoRoT data? -- Part III Major scientific achievements in planetary science -- Introduction -- III.1 Transit features detected by the CoRoT/Exoplanet Science Team -- III.2 Activity modelling and impact on planet's parameters The case of CoRoT7 -- III.3 CoRoT's planets: A family portrait -- III.4 CoRoT planet host stars -- III.5 Stellar classification in CoRoT faint stars fields -- III.6 Exploration of the brown dwarf regime around solarlike stars by CoRoT -- III.7 Planets orbiting stars more massive than the Sun -- III.8 Exoplanets versus brown dwarfs: The CoRoT view and the future -- III.9 Starplanet Interactions -- III.9-1 Investigating starplanet interactions with CoRoT -- III.9-2 Tidal evolution of CoRoT massive planets and brown dwarfs and of their host stars -- Part IV. Decisive breakthroughs for stellar physics -- Introduction -- IV.1 Insights on the internal structure of stars as provided by seismology -- IV.2 Pulsating red giant

stars -- IV.3 The wealth of stellar variability -- Part V. CoRoT paved the road to the future -- Introduction -- V.1 Lessons learned from CoRoT -- V.2 CoRoT heritage in future missions -- V.3 Present and future space missions for ultraprecision photometry

Sommario/riassunto

This book is dedicated to all the people interested in the CoRoT mission and the beautiful data that were delivered during its six year duration. Either amateurs, professional, young or senior researchers, they will find treasures not only at the time of this publication but also in the future twenty or thirty years. It presents the data in their final version, explains how they have been obtained, how to handle them, describes the tools necessary to understand them, and where to find them. It also highlights the most striking first results obtained up to now. CoRoT has opened several unexpected directions of research and certainly new ones still to be discovered.
