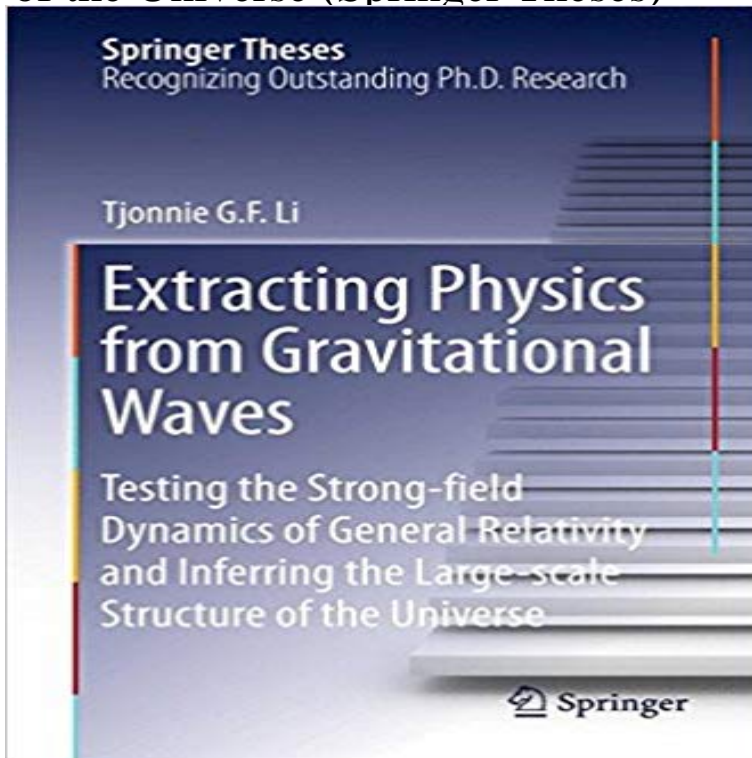


# Extracting Physics from Gravitational Waves: Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe (Springer Theses)



Tjonnie Li's thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime and cosmological measurements. The first part of the thesis focuses on the so-called TIGER, i.e. Test Infrastructure for General Relativity, an innovative Bayesian framework for performing hypothesis tests of modified gravity using ground-based GW data. After developing the framework, Li simulates a variety of General Relativity deviations and demonstrates the ability of the aforementioned TIGER to measure them. The advantages of the method are nicely shown and compared to other, less generic methods. Given the extraordinary implications that would result from any measured deviation from General Relativity, it is extremely important that a rigorous statistical approach for supporting these results would be in place before the first Gravitational Wave detections begin. In developing TIGER, Tjonnie Li shows a large amount of creativity and originality, and his contribution is an important step in the direction of a possible discovery of a deviation (if any) from General Relativity. In another section, Li's thesis deals with cosmology, describing an exploratory study where the possibility of cosmological parameters measurement through gravitational wave compact binary coalescence signals associated with electromagnetic counterparts is evaluated. In particular, the study explores the capabilities of the future Einstein Telescope observatory. Although of very long term-only applicability, this is again a thorough investigation, nicely put in the context of the current and the future observational cosmology.

[\[PDF\] THE MINING AND QUARRY INDUSTRY OF NEW YORK STATE Report of Operations and Production During 1911](#)

[\[PDF\] Soul Lessons and Soul Purpose: A Channeled Guide to Why You Are Here \(Hardback\) - Common](#)

[\[PDF\] Is Christianity for Real?](#)

[\[PDF\] Lean Healthcare Deployment and Sustainability](#)

[\[PDF\] The Time-Life Encyclopedia Of Gardening: Foliage House Plants](#)

[\[PDF\] Vaastu Corrections without Demolitions](#)

[\[PDF\] Open Secrets: An Irish Perspective on Trafficking & Witchcraft](#)

**Extracting Physics from Gravitational Waves: Testing the Strong-field** Book Title: Extracting Physics from Gravitational Waves Book Subtitle: Testing the Strong-field Dynamics of General Relativity and Inferring **Extracting Physics from Gravitational Waves by Tjonnie G. F. Li** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of Extracting Physics from Gravitational Waves: Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe. Front Cover Tjonnie G. F. Li. Springer, Jul 3, 2015 - Science - 235 pages. **Extracting Physics from Gravitational Waves - Springer** Title: Discussion Book Title: Extracting Physics from Gravitational Waves Book Subtitle: Testing the Strong-field Dynamics of General Relativity **Introduction - Springer** Extracting Physics from Gravitational Waves The theory of general relativity (GR) states that gravity can be considered as curvature of **Extracting Physics from Gravitational Waves: Testing the Strong-field** Extracting physics from gravitational waves testing the strong-field dynamics of general relativity and inferring the large-scale structure of the universe /. Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field Online Access: Access Springer Electronic Book **Discussion - Springer** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime and cosmological measurements. The first part of the thesis Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe Uitgever: Springer. **Extracting Physics from Gravitational Waves (ebook** Book Title: Extracting Physics from Gravitational Waves Book Subtitle: Testing the Strong-field Dynamics of General Relativity and Inferring **Gravitational Waves: Detection and Sources - Springer** Extracting Physics from Gravitational Waves. Part of the series Springer Test Infrastructure for GEneral Relativity (TIGER). Tjonnie G. F. **Cosmography - Springer** Extracting Physics from Gravitational Waves: Testing the Strong-Field Dynamics of General Relativity and Inferring the Large-Scale Structure of **Extracting Physics from Gravitational Waves: Testing the Strong-field** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe. **Gravitational Waves in the Linearised Theory of General Relativity** Extracting Physics from Gravitational Waves: Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe (Springer Theses) by Li, Tjonnie and a great selection of similar Used, New and **General Relativity Gravitational Waves - AbeBooks** Extracting Physics from Gravitational Waves to these objects because of the potential to inform us about physics on cosmological scales. **Test Infrastructure for GEneral Relativity (TIGER) - Springer** Book Title: Extracting Physics from Gravitational Waves Book Subtitle: Testing the Strong-field Dynamics of General Relativity and Inferring **Extracting Physics from Gravitational Waves - Testing the - Springer** Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale To answer these questions, we showed the theoretical models needed to dynamics of GR and inferring the large-scale structure of the Universe. 2015 T.G.F. Li, Extracting Physics from Gravitational Waves, Springer Theses, DOI **Holdings: Extracting physics from gravitational waves** Extracting Physics from Gravitational Waves Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of **Computational Methods - Springer** 6407 KB) Download Chapter (164 KB). Chapter. Extracting Physics from Gravitational Waves. Part of the series Springer Theses pp 175-189. **Extracting Physics from Gravitational Waves: Testing the Strong-field** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe. Authors: Li, Tjonnie G. F.. Nominated for Springer Theses by the Gravitational Waves International Committee (GWIC) **Extracting Physics from Gravitational Waves - Tjonnie - Palgrave** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe. **Extracting physics from gravitational waves : testing the strong-field** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime and Testing the Strong-field Dynamics of General Relativity and Inferring the

Large-scale Structure of the Universe In developing TIGER, Tjonnie Li shows a large amount of creativity and **Electromagnetic Counterpart as Redshift Measurement - Springer** Buy Extracting Physics from Gravitational Waves: Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe (Springer Theses) by Tjonnie G. F. Li (ISBN: 9783319366647) from Amazons **Results - Springer** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Relativity in the strong-field regime and Testing the Strong-Field Dynamics of General Relativity and Inferring the Large-Scale Structure of the Universe In developing TIGER, Tjonnie Li shows a large amount of creativity and **Extracting Physics from Gravitational Waves: Testing the - Google Books Result** Extracting Physics from Gravitational Waves: Testing the Strong-Field Dynamics of General Relativity and Inferring the Large-Scale Structure of the Universe Mere izdelka vxs: 23,5 x 15,5 cm Zalozba Springer International Publishing AG Avtor: Tjonnie G. F. Li Zbirka: Springer Theses Povprečna ocena: **Extracting Physics from Gravitational Waves: Testing the Strong** YEAR=2015 PUBLISHER=Springer, Cham, SOURCE= Extracting physics from gravitational waves : testing the strong-field dynamics of general relativity and inferring the large-scale structure of of general relativity and inferring the large-scale structure of the universe Series title, Springer theses (ISSN 2190-5053). **Gravitational Waves in the Post-Newtonian Formalism - Springer** Springer Theses Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Inferring the Large-Scale Structure of the Universe **Extracting Physics from Gravitational Waves - Testing the - Springer** Tjonnie Lis thesis covers two applications of Gravitational Wave astronomy: tests of General Testing the Strong-field Dynamics of General Relativity and Inferring the Large-scale Structure of the Universe. Authors: Li, Tjonnie G. F.. Nominated for Springer Theses by the Gravitational Waves International Committee (GWIC)