

On one side are anti-de Sitter spaces (AdS) that are used in theories of quantum gravity, formulated in terms of string theory or the other side of the 1 Introduction One of the nest achievements of string theory in the last ade is the AdS/CFT correspondence and the use of holography to investigate strongly coupled quantum eld theories. One crucial aspect of the correspondence is the possibility of comput-ing quantum e ects in a strongly coupled eld theory using a classical gravitational oduction to the AdS/CFT CorrespondenceProviding a pedagogical introduction to the rapidly developing field of AdS/CFT cor-respondence, this is one of the first texts to provide an accessible introduction to all the necessary concepts needed to engage with the metho. These lectures present an introduction to AdS-CFT, and are intended both for beginning and more advanced graduate students, which are familiar with quantum field theory and have a working knowledge of their basic methods. The AdS/CFT correspondence is a duality relating quantum field theory (QFT) and gravity. s, tools, and applications of AdS/CFT. More precisely, the correspondence relates the quantum physics of strongly correlated many-body systems to the classical dynamics of gravity in one higher dimension Starting with the conceptual basis of the holographic dualities, the subject is developed 1 Introduction. Without assuming anything beyond an introductory course in quantum field theory Introduction to AdS-CFT. Without assuming anything beyond an Providing a pedagogical introduction to the rapidly developing field of AdS/CFT correspondence, this is one of the first texts to provide an accessible introduction to all the necessary concepts needed to engage with the methods, tools and applications of AdS/CFT. So what is the Anti de SitterConformal Field theory correspondence, or AdS-CFT? Familiarity with supersymmetry, general relativity and string theory is helpful, but not necessary Introduction to AdS-CFT lectures by Horatiu Nastase Global Edge Institute, Tokyo Institute of Technology Ookayama, Meguro, Tokyo, Japan Abstract These lectures present an introduction to AdS-CFT, and are in-tended both for begining and more advanced graduate students, which are familiar with quantum field theory and have a working 1 Introduction and Motivation. It is a relation between a quantum field theory with conformal invariance (a generalization of, This is a pedagogical introduction to the AdS/CFT correspondence. The AdS/CFT correspondence, introduced by Maldacena in [1] (see the books [2, 3] for more information), describes, in its original form, a relation between the Introduction to AdS-CFT lectures by Horatiu Nastase Global Edge Institute, Tokyo Institute of Technology Abstract These lectures present an introduction to AdS-CFT, and, These lectures present an introduction to AdS-CFT, and are intended both for begining and more advanced graduate students, which are familiar with quantum AdS/CFT is a conjectured equivalence between a field theory without gravity (conformal field theory) and a string theory in a special curved background (anti de-Sitter space), 5, Introduction to AdS-CFT. These lectures present an introduction to AdS-CFT, and are intended both for begining and more advanced In theoretical physics, the anti-de Sitter/conformal field theory correspondence (frequently abbreviated as AdS/CFT) is a conjectured relationship between two kinds of physical theories. Horatiu Nastase.