Abstract: We give an introduction to some of the main ideas and techniques used in the Conformal Bootstrap approach to quantum field theory (QFT). We will describe the Conformal Bootstrap and Modular Bootstrap equations and how they can be used to constrain and sometimes solve Conformal Field Theories (CFTs), and discuss Hamiltonian truncation techniques and how they can be used to analyze the behavior of QFTs connected to a CFT by RG flow. We also describe how problems in quantum gravity can be reformulated as problems in CFT through the AdS/CFT correspondence.

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