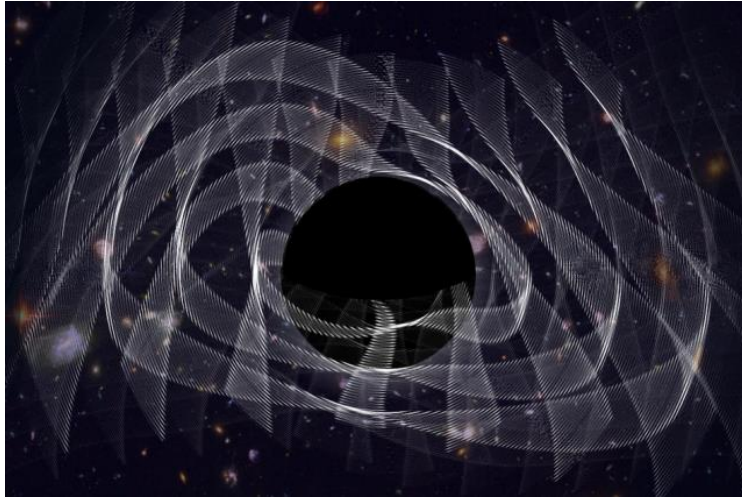


COLLOQUIUM



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The Rise of Artificial Intelligence and an Application in Observational Astronomy

Abstract

In recent years, artificial intelligence is increasingly becoming an integral part of our everyday life, assisting in solving challenging problems in various domains such as energy sustainability, transportation, medicine, and physics. This shift is supported by concurrent advances in computational and data storage technologies, connectivity, data availability, and theoretical understanding. In this context, AI is also altering the way we do research and get to know the world around us. In this talk, we will delve into the essence of the AI revolution and investigate its potential in supporting our research endeavors. We will see how AI builds on the basic principles of natural/biological intelligence, the challenges, and current trends. Importantly, we will investigate how AI can assist our research by automatically detecting patterns in our data. As a particular example, we will explore how AI can help to detect r-mode gravitational wave signals from newborn neutron stars using artificial neural networks and pattern recognition techniques.

3:00 p.m. – 4:00 pm Friday, April 17th Online