



PHYSICS COLLOQUIUM: Measuring The Expansion Rate Of The Universe With Gravitationally Lensed Multiply Imaged Flickers

Date:

9/9/2022

Time:

10:30 AM - 11:50 AM

Location:

KOLLIG 217

Simon Birrer

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About The Speaker:

I am a cosmologist using observations of our cosmos to answer fundamental questions in physics. I am currently a Kavli Postdoctoral Fellow at Stanford University in the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC). In January 2023 I am excited to start as an Assistant Professor at Stony Brook University as a member of the Astronomy and Cosmology Group.

Abstract:

The arrival time delays of multiply imaged strong gravitationally lensed sources provides a one-step cosmological distance measurement. The methodology, known as time-delay cosmography, rose to prominence to provide precise measurements of the Hubble constant, independent of the local distance ladder and the cosmic microwave background. I introduce the methodology and key ingredients, as well as possible systematics. I will then highlight the progress made in the last decade, present the recent results obtained, and present an outlook in the near future.

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