

## **J. Gair: LISA data analysis challenges for constraining environmental effects**

*Thursday, June 8, 2023 9:30 AM (45 minutes)*

LISA has the potential to place stringent constraints on the astrophysical environments of the black holes generating the gravitational waves it observes. However, this will only be possible with careful analysis of the LISA data stream, which poses significant challenges. I will give an overview of the current state of knowledge of LISA data analysis and then discuss outstanding challenges that may ultimately limit our ability to measure environmental and beyond-GR effects. These include confusion between sources of different types, lack of knowledge of the instrumental noise, calibration and transfer function and the presence of gaps and glitches in the data.