

# Shota Saito "Cosmological axions challenge string theory"

*Thursday, 9 November 2023 16:00 (25 minutes)*

Recent cosmological observations have pointed to the existence of ultralight axions. The introduction of at least three ultralight axions could mitigate the Hubble tension and S8 tensions and explain cosmic birefringence. Furthermore, dark energy and dark matter could also be ultralight axions. These multiple axions challenge string theory, especially the swampland conjecture, which is negative for these axions.

**Session Classification:** Short talks