Contribution ID: **52** Type: **Keynote Talk**

Uncovering ”Wave Dark Matter” (ultra-light bosons) with JWST and Implications for High Energy Physics

Thursday, 26 June 2025 13:30 (1 hour)

We show how light axions generic in String Theory provide definitive predictions that are borne out by deep lensing and galaxy formation data from JWST. This wave-like behaviour was predicted by pioneering simulations in Taiwan, with pervasive substructure on the de Broglie scale that is very distinguishable from standard heavy particle CDM. This dark matter solution reinforces the absence of heavy partner MSSM candidates at the LHC and we argue strengthens the case for unification at the EW scale.

Please choose your topic

Primary author: BROADHURST, Tom (University of the Basque Country and DIPC)

Presenter: BROADHURST, Tom (University of the Basque Country and DIPC)

Session Classification: Keynote Talks