



Contribution ID: 188

Type: **Oral**

## A new probe of cool gas outflows from distant galaxies

Outflows have long been considered a key mechanism for quenching star formation in galaxies, yet direct evidence linking outflows to quenching has remained elusive for decades. With the advent of JWST, our ability to study outflows in the early Universe has been transformed - particularly through the widespread detection of neutral gas being expelled from massive galaxies. This neutral phase likely carries the bulk of the outflow mass and directly reflects the depletion of the star-forming gas reservoir. In this talk, I will present new insights from JWST on the prevalence and energetics of neutral outflows, their dependence on galaxy properties, and their role in quenching star formation. I will also discuss some of the puzzles arising from the JWST results and introduce ongoing observational programs aimed at establishing neutral sodium absorption as a robust, widely applicable tracer of outflows across cosmic time.

**Author:** DAVIES, Rebecca (Swinburne University of Technology)

**Presenter:** DAVIES, Rebecca (Swinburne University of Technology)

**Session Classification:** Plenary