Contribution ID: **53** Type: **Oral contribution**

Chemical enrichment and ionizing escape fraction from observations of GRBs

Tuesday 10 September 2019 15:50 (30 minutes)

Gamma-ray bursts can be seen to very high redshifts, and the bright power-law continua of their afterglows provide ideal backlights for absorption lines studies. I will review what we have learnt from GRBs about evolving chemical abundances in the early universe; and consider the implications of the high HI column densities seen on the sight lines to GRBs for the escape fraction of ionizing radiation from massive stars. I will also review the importance of the kilonovae accompanying short-duration GRBs for the nucleosynthesis of heavy elements.

Primary author: Prof. TANVIR, Nial (University of Leicester)

Presenter: Prof. TANVIR, Nial (University of Leicester)

Session Classification: OBSERVATIONAL APPROACH: CEMP STARS, FIRST STARS, FIRST GALAXIES