
Abundance and kinematics of the CGM as observed with MUSE.

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Abstract

Galaxies are constantly fed by the diffuse material from the intergalactic medium through the Circum - Galactic Medium (CGM). Strong outflows from SN or AGN feedback expel the enriched material back to the CGM. The physical properties of the CGM are still poorly unknown: is it a multi-phase medium, how powerful are inflows and outflows and how much mass is carried away by the galactic winds? We can probe these vast gaseous haloes around galaxies by studying absorbers detected in the spectra of the background bright quasars. To understand the dynamics of the system we combine the physical properties from the absorption features with the broader view of the absorber’s host and its environment by emission diagnostics, using the IFU spectroscopy.

To address these questions we are studying a sample of absorber – quasar pairs with MUSE. In this talk I will present some preliminary results of this program, in particular focusing on the studies of the gas kinematics and metallicity and the general CGM properties of the quasar absorbers host galaxies, which in turn can help better constrain galaxy evolution models.

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