



COLLOQUIUM

Thursday, March. 27, 2025
4pm Workman 101

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Understanding galaxy evolution through the lens of the circumgalactic medium

Galaxies over a wide range of redshifts and halo masses display a striking regularity in some of their bulk properties, including stellar mass fraction, metallicity, and star formation rate as a function of halo mass. This suggests that galaxies have a way of regulating themselves to ensure that this happens – not unlike how a thermostat keeps a room at a constant temperature! In this talk, I will present recent theoretical efforts by my research group and collaborators that attempt to understand some key aspects of galaxies, including the structure of the circumgalactic medium and its interaction with stellar feedback and gas flowing in from the cosmic web, and how these aspects work together to reach a self-regulating equilibrium.