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## Backlighting the baryons with the CMB

*Tuesday, 9 April 2024 09:00 (25 minutes)*

Many baryon properties such as density, temperature, bulk velocity and more are imprinted on the CMB as secondary anisotropies. I will review these numerous effects, including the thermal and kinematic Sunyaev-Zel'dovich effects, the patchy screening, highlighting their differences and complementarity. Combined with imprints of the gravitational potential on the CMB, such as lensing, integrated Sachs-Wolfe and moving lens effect, they will provide a multifaceted picture of the gas thermodynamics in galaxy halos, with implications for galaxy formation and galaxy lensing. I will present new developments in statistical methods to measure them and to distinguish them from each other and from other foreground emission. These have enabled recent first detections (e.g., patchy screening) and promise to enable more with existing and upcoming datasets.

**Presenter:** SCHAAN, Emmanuel