

## **Abstract:**

The Universe's average neutral fraction is about  $1/100000$ . The epoch during which this ionization occurred is called the Epoch of Reionization and took place about a billion year after the big bang. This reionization is caused by the advent of UV radiation emanating from the first galaxies that ionise the hydrogen and helium in the intergalactic medium.

However, as the large structure in the Universe forms intermediate density filaments form and allow for a lightly higher neutral hydrogen to form (through recombinations). The current and future telescope have reached enough sensitivity to observe this neutral hydrogen making it a useful large scale structure tracer as well as allow probing the baryon abundance in the Warm Intergalactic medium phase.