

## **Feedback Effects at Cosmic Dawn**

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**Abstract** The appearance of the first stars when the universe was only 100 Myr old marked the Cosmic Dawn and the occurrence of a number of physical effects (cosmic reionization, intergalactic medium metal enrichment, black hole formation, magnetic field cosmogenesis and - obviously - galaxy formation) which are now entering the realm of the observability and are strongly governed by so-called 'feedback effects'. These feedback effects due to massive stars and supernovae in the first objects are shown to regulate both galaxy formation/evolution and the reionization process.

They are particularly relevant as it is believed that the Initial Mass Function of the first stars was very heavy, thus favouring the formation of massive objects which end their lives as supernovae, or most likely, in even more gigantic explosions which could be connected with high energy events as gamma ray bursts and TeV-neutrino emission. I will review these physical processes at high redshift ( $z > 5$ ) and their detectable imprints, and propose a number of experiments which could yield the first observational signals from the Dark Ages of the universe.