

Key events in the evolution of the early universe

Event	Time	Redshift, z	Temperature	Wavelength
Big Bang	0			
Planck time	10^{-43} sec			
Gravity distinct force	10^{-43} sec		10^{19} GeV or 10^{32} K	
Strong force separates Start of inflation	10^{-35} sec		10^{14} GeV or 10^{27} K	
End of inflation	10^{-32} sec			
Weak and electromagnetic forces separate	10^{-12} sec		100 GeV or 10^{15} K	
Baryosynthesis, protons, quarks, etc.	10^{-6} sec		1 GeV	10^{-3} nm
Electrons and positrons can exist freely	1 second		0.5 MeV	0.5 nm
Radiation dominated	2,500 yrs after Big Bang	25,000	68,000 K	40 nm, in the ultraviolet
Recombination era	380,000 yrs after BB	1,100	3,000 K	970 nm, in the infrared
Peak of star formation and AGN formation	7 billion years after BB	1	5 K	.5 mm
Now	13.7 billion years after BB	0	2.725 K	1 mm or 10^{-3} m