Cosmic Microwave Background, Its Fluctuations and Dark Energy HELI VORA, Stony Brook University — In today’s seminar I will be talking about Cosmic Microwave Background (CMBR). This is a faint glow, isotropic in the universe, which can be identified as remnant radiation from approximately 400,000 years after big bang. Cosmic Microwave background which peaks in the microwave region of electromagnetic spectrum is confirmed by the big bang theory, no other cosmic theory about evolution of universe can explain this radiation. Recent experiments, such as COBE (Cosmic background Explorer) and WMAP (Wilkinson Microwave Anisotropy Probe) have measured fluctuations in the temperature of CMBR, which are important in calculating cosmological parameters. In my talk, I will begin with history of CMBR and its explanation through The Big Bang theory. I will give a review of experiments done till date and focus on WMAP and its results. In the end, I will briefly discuss how CMBR provides an evidence of dark energy.