Abstract
Since the measurements with COBE/FIRAS in the mid-90's we know that the energy spectrum of the cosmic microwave background (CMB) is extremely close to that of a perfect blackbody. However, a number of early Universe processes should create spectral distortions at a level within reach of present day technology. I will give a broad-brush overview of recent theoretical and experimental developments, explaining why future measurements of the CMB spectrum will open an unexplored new window to early-universe and particle physics. This provides an exciting new path forward in CMB cosmology which is complementary to planned and ongoing searches for primordial B-mode polarization signals.