Abstract
For almost two decades, cosmological observations indicate that the expansion of
the universe is accelerating. Cosmic acceleration and the questions associated
with it are at the heart of one of the most challenging and puzzling problems in
cosmology and physics. What is the cause of this acceleration? Is it because of a
repulsive dark energy or cosmological constant pervading the universe, or
perhaps a modification to Einstein’s General Relativity that takes effect at
cosmological scales of distance, or because the expansion rate of space-time is
uneven from one region to another in the universe? I will review these
possibilities and discuss what recent results, including ours, have to say about it.