



ABSTRAK

DEFLASI KOSMIK DI AKHIR ALAM SEMESTA

Oleh

AMIRUL ADLIL HAKIM

17/412586/PA/17905

Telah dikaji skenario keruntuhan di akhir alam semesta dan telah didapatkan persamaan yang memodelkan keruntuhan alam semesta tertutup ($k = +1$). Telah dikaji pula kemungkinan keruntuhan yang disertai deflasi untuk alam semesta yang rapat energi awalnya didominasi rapat energi medan skalar. Deflasi dapat terjadi apabila ada suatu mekanisme yang menyebabkan rapat energi medan skalar kembali tinggi dan kembali mendominasi rapat energi alam semesta.

Kata kunci: kosmologi, deflasi kosmik, keruntuhan besar.



ABSTRACT

COSMIC DEFLATION AT THE END OF THE UNIVERSE

By

AMIRUL ADLIL HAKIM

17/412586/PA/17905

The crunch scenario at the end of the universe has been studied and the equation that models the crunch in a closed universe ($k = +1$). The possibility of crunch with deflation in the universe with initial energy density is dominated by the energy density of a scalar field has also been studied. Deflation could happen if there is a mechanism that cause the energy density of the scalar field grew and re-dominated the energy density of the universe.

Keywords : cosmology, cosmic deflation, big crunch