

PERSAMAAN MAXWELL DAN EFEK NONLINEAR

ABSTRAK

Telah dilakukan penjabaran persamaan-persamaan Maxwell dan persamaan gerak elektron dalam medium yang dikenai potensial bergantung waktu dan posisi. Persamaan Maxwell dalam ruang hampa menghasilkan penyelesaian medan elektromagnetik yang bersifat linear. Jika ada medium, persamaan Maxwell akan menghasilkan penyelesaian medan elektromagnetik yang bersifat nonlinear.



MAXWELL EQUATIONS AND NONLINEAR EFFECTS

ABSTRACT

Derivation of the Maxwell equations and the electron equation of motion in the medium subject to potential energy which depend on both time and position have been performed. The Maxwell equations in vacuum give the solution to the electromagnetic fields which are linear in properties. When there is a medium, the Maxwell equations will give a solution to the electromagnetic fields which are nonlinear in properties.

