INTISARI

Persamaan-persamaan medan listrik dan magnet muatan titik bergerak dengan kecepatan tetap dijabarkan dari integral tangap yang menunjukkan penyelesaian persamaan Maxwell untuk medan listrik dan magnet muatan gayut-waktu berubah-ubah dan distribusi arus.

Perbedaannya dengan penjabaran konvensional, penjabaran yang diuraikan di sini berdasarkan pada persamaan medan elektromagnetik umum dan dibandingkan dengan potensial tangap dan persamaan relativistik.

Penjabaran-penjabaran ini menuju pada beberapa kesimpulan mengenai medan listrik dan magnet distribusi muatan yang bergerak berubah-ubah dengan kecepatan tetap.

This document is Undip Institutional Repository Collection. The author(s) or copyright owner(s) agree that UNDIP-IR may, without changing the content, translate the submission to any medium or format for the purpose of preservation. The author(s) or copyright owner(s) also agree that UNDIP-IR may keep more than one copy of this submission for purposes of security, back-up and preservation. (http://eprints.undip.ac.id)

ABSTRACT

The equations of the electric and magnetic fields of a point charge which moving with constant velocity are derived from retarded integrals representing solutions of Maxwell's equations for electric and magnetic fields of arbitrary time-dependent charge and current distributions.

In contrast to conventional derivations, the derivations presented based on exclusively general electromagnetic fields equations and compared with retarded potentials and relativistic equations.

The derivations lead to some notable conclusions concerning the electric and magnetic fields of an arbitrary charge distribution moving with constant velocity.

This document is Undip Institutional Repository Collection. The author(s) or copyright owner(s) agree that UNDIP-IR may, without changing the content, translate the submission to any medium or format for the purpose of preservation. The author(s) or copyright owner(s) also agree that UNDIP-IR may keep more than one copy of this submission for purposes of security, back-up and preservation. (http://eprints.undip.ac.id)