

Simulations of pp collision with center-of-mass energy 5.02 TeV and transverse momentum of final partons in range 100 – 200 GeV were carried out. Consequently jets were reconstructed from the generated events using two types of jet algorithms: cone algorithm using p_T and also E recombination scheme and anti- k_t algorithm. The two approaches were compared. The correlations between properties of jets and energy in their surroundings were studied using anti- k_t algorithm. A strong correlation was found between the invariant mass of jet and its width. Jets were successively divided according to whether they were initiated by quarks or gluons. It was found that in the surroundings of jets initiated by gluons the stored energy is 5 GeV higher than for jets initiated by quarks. The differences between narrower (0.4 – 1.0 in η - ϕ space) and wider (1.0 – 1.5) defined surroundings were studied. It was found that there is a stronger correlation between the transverse momentum of a narrower defined surroundings and the invariant mass and width of jets than of a wider defined surroundings.