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# Study of the pT-distributions of secondary charged particles produced in d$^{12}$C interactions at 4.2A GeV/c

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The behavior of the transfer momentum pT distribution of protons, $\pi^+$ and $\pi^-$ mesons, produced in d$^{12}$C - interactions at 4.2A GeV/c and also with maximum transfer momentum in an event have been studied. The experimental data have been obtained from the 2m propane bubble chamber of Joint Institute for Nuclear Research, Dubna, Russia. The experimental results have been compared with ones coming from the Dubna version of the cascade model. We have got that there are three regions in the behavior of the transfer momentum pT distributions for all type of particles, the III region is pT >0.375GeV/c and it is limited for the p-mesons by the values of pT ~ 1GeV/c though for the protons the limit values is approximately 1.5GeV/c, meson contributions to this region approximately one order less than for protons and decrease sharper than for protons do. Cascade code could not describe satisfactorily the experimental results in the III region, the number of particles in this region of systematically less than ones coming from the experiment.

## Biography

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