

ОБЪЕДИНЕННЫЙ  
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*SU 79 09428*

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where  $G_{A \rightarrow a}(x)$  is the distribution function for quarks in hadron  $A$  and  $D_c^h(z)$  is the function of fragmentation of quark  $c$  into hadron  $h$ ,  $d\hat{\sigma}/d\hat{t}(qq \rightarrow qq)$  being the quark-quark scattering cross section.

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\* Note that the asymptotic behaviour of the form factor resulting from the DMFQ obeys the Drell-Yan-West relation, while the dimensional quark counting prediction does not agree with it<sup>/5/</sup>.

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The results of analysis of the reaction  $pp \rightarrow \pi^0 X$  /6/ by formulae (1) and (4) given in the Table and in the Figure testify to a good agreement with experiments. If the cross section (1) is represented in the form

$$E \frac{d^3\sigma}{dp^3} (pp \rightarrow \pi^0 X) \sim p_{\perp}^{-N} \quad \text{then the theoretical curves at}$$

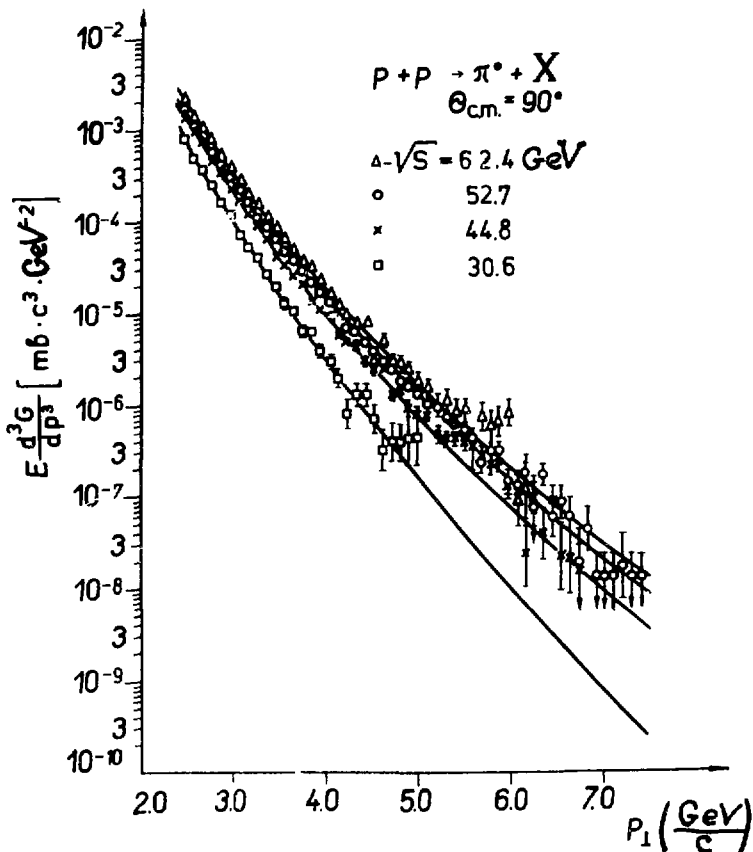
$S = \text{const}$  ( see the Figure) imply that according to (4), the power  $N$  grows from  $N \approx 9$  at  $p_{\perp} = 2.4 \text{ GeV}/c$

### Table

The values of  $\chi^2$  per one degree of freedom and quark masses calculated in the description of data /6/ on reaction  $pp \rightarrow \pi^0 X$   $\Theta_{c.m.} = 90^\circ$ , by the DMFQ formula (4)

$\sqrt{s}$ [GeV]	$\chi^2_{d.f.} = \frac{\chi^2}{N-2}$	$M_q$ [GeV]
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till  $N = 13$  at  $p_{\perp} = 7.5 \text{ GeV}/c$ . This fact is consistent with the results of fits performed in<sup>6/</sup> at  $S = \text{const}$ . Note that the quark mass is about  $0.3 \text{ GeV}$  (see the Table) which has been obtained in analysing the data on elastic  $pp$ -scattering within the DMFQ<sup>5/</sup> and is of the same order as that found in analysing electromagnetic form factors,  $M_q \sim 0.2 \text{ GeV}$ <sup>5/</sup>.

## REFERENCES

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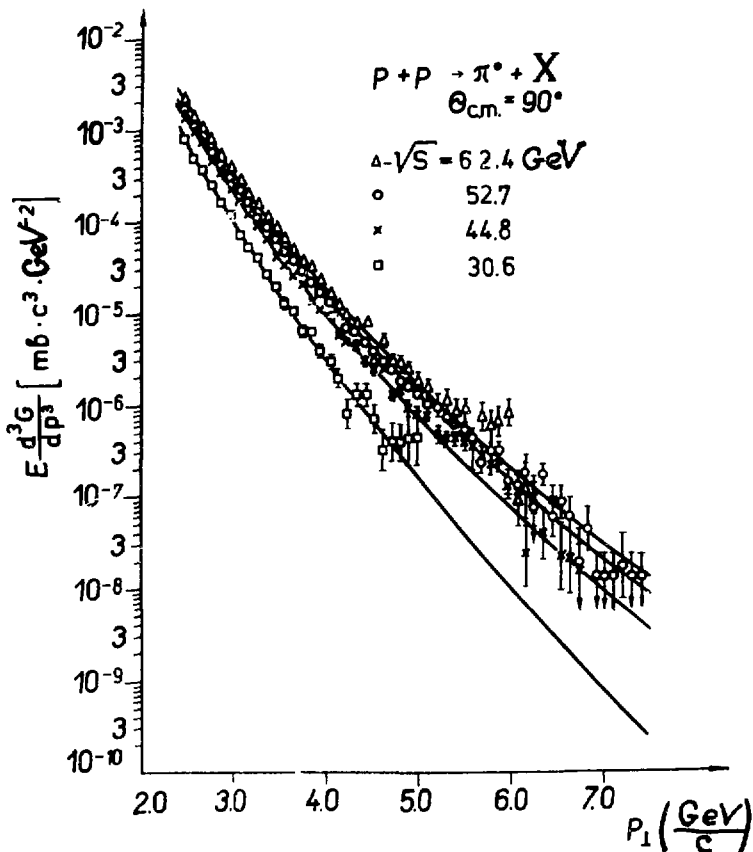
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