

The Formula of the Particle Radii

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In 1996 we found the formula of the particle radii[1-3]

$$r = 1.55[m(\text{Gev})]^{1/3} \text{jn}, \quad (1)$$

where $1 \text{jn} = 10^{-15} \text{cm}$ and $m (\text{Gev})$ is the mass of the particles.

From (1) we have that the proton and neutron radii are 1.5jn .

Pohl *et al* measure the proton diameter 3jn [4].

We have the formula of the nuclear radii

$$r = 1.2(A)^{1/3} \text{fm}, \quad (2)$$

where $1 \text{fm} = 10^{-13} \text{cm}$ and A is its mass number.

It is shown that (1) and (2) have the same form. The particle radii $r < 5 \text{jn}$ and the nuclear radii $r < 7 \text{fm}$.

References

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