Abstract Submitted
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Estakhr Permutation Amplitude, (String Theory) AHMAD REZA
ESTAKHR, Researcher — Permutation $P(n, m) = \frac{n!}{(n-m)!}$, when interpreted as a
scattering amplitude, has many of the features needed to explain the physical prop-
erties of strongly interacting mesons, such as symmetry and duality. The formula is
the following: $P(\frac{1}{2}(k_1+k_2)^2 - 2, \frac{-1}{2}(k_2+k_3)^2 + 1)P(\frac{1}{2}(k_2+k_3)^2 - 2, \frac{1}{2}(k_2+k_3)^2 - 2)$,
k^n is a vector (such as a four- vector) referring to the momentum of the nth par-
ticle. relashionship between Euler beta function and Permutation: $B(n, m) =
P(n - 1, -m)P(m - 1, m - 1)$, Relationship between the Veneziano amplitude
and Estakhr Permutation Amplitude: $B(\frac{1}{2}(k_1 + k_2)^2 - 1, \frac{1}{2}(k_2 + k_3)^2 - 1) =
P(\frac{1}{2}(k_1+k_2)^2 - 2, \frac{-1}{2}(k_2+k_3)^2 + 1)P(\frac{1}{2}(k_2+k_3)^2 - 2, \frac{1}{2}(k_2+k_3)^2 - 2)$, (The notion
of permutation relates to act of permuting or rearranging members of a set into a
particular sequence or order)

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