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The Permutation of Symmetric Triangular Equilateral Group in the Cryptography of Private and Public Key

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Abstract : In this paper, we propose a cryptosystem private and public key base on symmetric group Pn and validates its theoretical formulation. This proposed system benefits from the algebraic properties of Pn such as noncommutative high logical, computational speed and high flexibility in selecting key which makes the discrete permutation multiplier logic (DPML) resist to attack by any algorithm such as Pohlig-Hellman. One of the advantages of this scheme is that it explore all the possible triangular symmetries. Against these properties, the only disadvantage is that the law of permutation multiplicity only allow an operation from left to right. Many other cryptosystems can be transformed into their symmetric group.

Keywords : cryptosystem, private and public key, DPML, symmetric group Pn
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