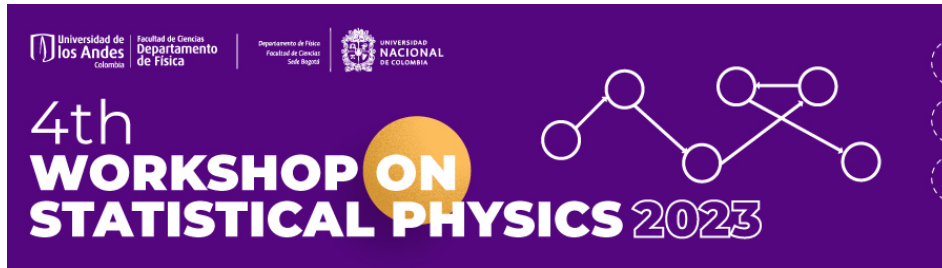


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Burr distribution in voting and asymmetric additive stochastic process

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The distribution by regions of electoral voting is frequently studied in the sociopolitical field. Making use of the databases on presidential and congressional voting reported by the Registraduría Nacional del Estado Civil (RNEC) in Colombia, by the Servicio Electoral de Chile (SERVEL) and by the Instituto Nacional Electoral (INE) in Mexico, it is found that the votes obtained in properly established regions are distributed among municipalities for each of the electoral options following a Burr distribution pattern. Complementarily in this work, the generation of Burr distribution patterns is shown through a kinetic exchange model associated with an asymmetric additive stochastic process for two agents, which will establish the bases for a modeling of the previously mentioned voting results.

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