



Drop-like vs Flux-like description of the rainfall phenomenon: toward a new understanding of precipitation

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Rainfall is a discrete drop-like phenomenon that has been often described as a continuous flux-like phenomenon. This paradox is due to the historical development of instruments collecting the water volume fallen through a given area per unit of time, and to the importance of questions like "how much does it rain and for how long". As a consequence, considerably more attention has been given to the properties of flux-like quantities such as the rain duration, rain intensity and drought duration, than to drop-like quantities such as the inter-drop time interval and drop-size. Our results indicate that the continuous flux-like vision of rainfall can be ineffective in detecting the invariant properties of the phenomenon. A comprehensive understanding of rainfall behaviour must rest on the acknowledgement of its discrete drop-like nature. We anticipate our essay to be a starting point for new and more profitable analyses of the rainfall phenomenon.