

Characteristic of Neutrosophic Almost Convergent Sequences in NNLS

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The key notion of almost convergence is not yet explored in the neutrosophic setting, although, recently, functional analysis has expanded to neutrosophic environment as well. This paper states and develops the concept of neutrosophic almost convergence, to seal the gap. In order to construct an essential framework we intend to propose a new form of neutrosophic norm at first. While the space of neutrosophically almost convergent sequences fails to satisfy the requirement of an algebra, we show that it remains a valid vector space under the defined operations. We also provide strict characterizations of the space and establish that neutrosophic almost convergence, as well as neutrosophic boundedness are interrelated in a given neutrosophic normed linear space (NNLS). Finally, we find the necessary inclusion criteria and investigate the theoretical relationship between neutrosophic almost convergence and its classical counterpart. The foundational properties and inclusion relations for these spaces are also formally established.