ON ASYMPTOTICALLY LACUNARY STATISTICAL EQUIVALENT IN NEUTROSOPHIC NORMED SPACES

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Abstract. Neutrosophic theory offers a new perspective on complex and indeterminate situations in daily life and provides a flexible approach to modeling these situations. Recently, important concepts studied in summability theory have been examined in neutrosophic normed spaces, which have emerged from this neutrosophic approach. This has motivated us to investigate certain important concepts, which are natural combinations of the definitions of asymptotic equivalence, statistical convergence, and lacunary statistical convergence, in neutrosophic normed spaces. Based on this, we first introduce and examine the concepts of asymptotically equivalent, asymptotically statistical equivalent, asymptotically lacunary statistical equivalent, and strongly asymptotically lacunary equivalent for sequences in neutrosophic normed spaces. Then, we provide theoretical insights into these concepts, investigate the relationships between them, and present some inclusion theorems.