

Statistical Convergence of Sequences of Dual Numbers

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Abstract

When x and y are real numbers, the combination $z = x + \varepsilon y$ is called a dual number, and such numbers are considered as polynomials in ε together with the multiplication rule $\varepsilon^2 = 0$.

In this talk, some basic concepts such as statistical convergence and statistical boundedness of sequences in the set of dual numbers are defined by using the fact that the module satisfies only pseudo metric axioms on this set. For boundedness, the decomposition theorem is proved. Finally, a statistical Cauchy criteria is given for sequences of dual numbers.