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ON GENERALIZED STATISTICAL CONVERGENCE OF ORDER $\tilde{\alpha}$ VIA IDEAL WITH RESPECT TO MODULUS FUNCTION

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Abstract. In this paper, we define new notions of $(f,\mathcal{I})$-statistical convergence for triple sequences of order $\tilde{\alpha}$ and strong $(f,\mathcal{I})$-Cesàro summability for triple sequences of order $\tilde{\alpha}$. Furthermore, we examine the relationships among the spaces $w^3_{\tilde{\alpha},0}(f,\mathcal{I})$, $w^3_{\tilde{\alpha}}(f,\mathcal{I})$ and $w^3_{\tilde{\alpha},\infty}(f,\mathcal{I})$. Additionally, we present the concepts of $(f,\mathcal{I})$-lacunary statistical convergence of order α and strong $(f,\mathcal{I})$-lacunary summability of order α for triple sequences, providing inclusion relations among these new concepts.

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