

**Pilipović, Stevan**

**Characterizations of bounded sets in spaces of ultradistributions.** (English) Zbl 0816.46026  
Proc. Am. Math. Soc. 120, No. 4, 1191-1206 (1994).

Summary: We characterize bounded sets in ultradistribution spaces  $\mathcal{D}'_{L^t}^{(M_p)}$ ,  $t \in [1, \infty]$ ,  $\mathcal{S}'^{\{M_p\}}$ , and  $\mathcal{S}'^{(M_p)}$  and bounded sets and convergent sequences in  $\mathcal{D}'^{(M_p)}$  and  $\mathcal{D}'^{\{M_p\}}$  via the convolution by corresponding test functions. The structural theorems for  $\mathcal{D}'_{L^t}^{\{M_p\}}$  and  $\tilde{\mathcal{D}}'_{L^t}^{\{M_p\}}$ ,  $t \in [1, \infty]$ , are also given.

**MSC:**

**46F05** Topological linear spaces of test functions, distributions and ultradistributions

Cited in **25** Documents

**Keywords:**

Beurling and Roumieu spaces of ultradistributions; bounded sets in ultradistribution spaces

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