

DISJOINTNESS OF THE DIFFERENTIATION OPERATOR TUPLE ON WEIGHTED BANACH SPACES OF ENTIRE FUNCTIONS

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Abstract. When the differentiation operator is continuous on weighted Banach spaces of entire functions, several characterizations for the disjoint mixing, disjoint hypercyclicity and disjoint supercyclicity of finitely many differentiation operators on $H_{v,0}(\mathbb{C})$ are presented. Especially, we deduce an equivalence between the hypercyclicity of a single differentiation operator and the disjoint mixing of tuple D^{r_1}, \dots, D^{r_N} for $1 \leq r_1 < r_2 < \dots < r_N$ on $H_{v,0}(\mathbb{C})$, which strengthens some existing results.

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