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Multiplier transformations on H^p spaces. (English) Zbl 1050.42010
Stud. Math. 131, No. 2, 189-204 (1998).

Summary: The authors obtain some multiplier theorems on H^p spaces analogous to the classical L^p multiplier theorems of de Leeuw. The main result is that a multiplier operator $(Tf)\hat{\ }(x) = \lambda(x)\hat{f}(x)$ ($\lambda \in C(\mathbb{R}^n)$) is bounded on $H^p(\mathbb{R}^n)$ if and only if the restriction $\{\lambda(\varepsilon m)\}_{m \in \Lambda}$ is an $H^p(\mathbb{T}^n)$ bounded multiplier uniformly for $\varepsilon > 0$, where Λ is the integer lattice in \mathbb{R}^n .

MSC:

- [42B15](#) Multipliers for harmonic analysis in several variables
- [42B30](#) H^p -spaces
- [46E15](#) Banach spaces of continuous, differentiable or analytic functions
- [47B38](#) Linear operators on function spaces (general)

Cited in **3** Documents

Keywords:

[multiplier operator](#); [bounded operator](#)

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