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Functions with uniformly bounded mean oscillations on cubes

Definition. Functions with uniformly bounded mean oscillations on cubes

Let $f \in L^1_{\text{loc}}(\mathbb{R}^d)$ and

$$\|f\|_{\text{BMO}} := \sup \left\{ \frac{1}{m(R)} \int_R \left| f - \frac{1}{m(R)} \int_R f \right| R \text{ is a cube in } \mathbb{R}^d \right\}$$

and

$$\text{BMO} := \frac{\{f \in L^1_{\text{loc}}(\mathbb{R}^d) \mid \|f\|_{\text{BMO}} < \infty\}}{\{\text{functions that are constant aeon } \mathbb{R}^d\}}$$

Proposition:

$$L^\infty \rightarrow \text{BMO}$$

[1]

Current note has 0 direct children and 0 total descendants.

- stem
 - subobjects of and functions on $\mathbb{R}^n, S^n, \mathbb{C}^n$ and its quotients $\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n$
 - Lebesgue measurable subsets of and functions on $\mathbb{R}^n, T^n, S^n$
 - Functions with uniformly bounded mean oscillations on cubes

And it has 15 siblings.

- stem
 - subobjects of and functions on $\mathbb{R}^n, S^n, \mathbb{C}^n$ and its quotients $\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n$
 - Lebesgue measurable subsets of and functions on $\mathbb{R}^n, T^n, S^n$
 - Functions with uniformly bounded mean oscillations on cubes
 - Decomposition of $f \in L^p$ into bounded and unbounded parts
 - Calderon-Zygmund decomposition
 - Lebesgue density of measurable sets
 - Functions with uniformly bounded mean oscillations on dyadic cubes
 - Volterra operator $\int_{[0,-]} : L^1_{\text{loc}}[0,1) \rightarrow \mathcal{C}[0,1)$
 - Measurable functions on $\mathbb{R}^n$
 - (ϵ, n) -measurable function
 - Integrability and integral of measurable functions on $\mathbb{R}^n$
 - Hardy-Littlewood maximal functions of $L^1_{\text{loc}}(\mathbb{R}^n)$
 - Lebesgue averaging and differentiation
 - Integrals of a monotonically converging sequence of functions
 - Lebesgue integral from measure of undergraph
 - $L^{p,q}$
 - $E([0,1]) = E(0,1), E([- \pi, \pi]) = E(S^1)$

1. <https://press-files.anu.edu.au/downloads/press/n1666/pdf/book.pdf> ↔