# 算子沿拓

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注意到, $M_1 := \mathrm{span}\{1, x^2, x^4, x^6, \ldots\}$ 和 $M_2 := \mathrm{span}\{1, x^1, x^3, x^5, \ldots\}$ 均是 $C([0,1])$ 的稠子空间.

定义

$$T_1 : M_1 \to C([0,1]), \ f \mapsto f.$$

且

$$T_2 : M_2 \to C([0,1]), \ f := a_0 + \sum_{k=1} a_{2k-1} x^{2k-1} \mapsto a_0 + \sum_{k=1} 2 a_{2k-1} x^{2k-1},$$

其中 $\{a_{2k-1}\}_{k \in \mathbb{N}}$ 有限个非零.

## 参考文献

[1] A. N. Kolmogorov and S. V. Fomin, Measure, Lebesgue Integrals, and Hilbert Space, Academic Press, New York-London, 1961. [-]

[2] Y. Meyer, Wavelets and Operators, Translated from the 1990 French original by D.H. Salinger, Cambridge Studies in Advanced Mathematics, vol. 37, Cambridge University Press, Cambridge, 1992. [-]