

 Info

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Left and right shift on $l^2(\mathbb{N})$

Definition. Definition

$$S(a_1, \dots) := (0, a_1, \dots)$$

S has no eigenvectors

$$\begin{aligned} & S(a_1, \dots) &&= \lambda(a_1, \dots) \\ \implies & (0, a_1, \dots) &&= \lambda(a_1, a_2, \dots) \\ \implies & \begin{cases} a_i = 0 & \text{if } \lambda = 0 \\ a_i = \frac{1}{\lambda} a_{i-1}, a_1 = 0 & \text{if } \lambda \neq 0 \end{cases} \\ \implies & a_i = 0 \end{aligned}$$

Therefore, S has no eigenvectors.

spectrum

	T	S
σ_{p}	D	$\emptyset$
σ_{ap}	$\overline{D}$	S^1
σ_{comp}	$\emptyset$	$\overline{D}$
σ	$\overline{D}$	$\overline{D}$

Current note has 0 direct children and 0 total descendants.

- stretchy
 - shift
 - Left and right shift on $l^2(\mathbb{N})$

And it has 2 siblings.

- stretchy
 - shift
 - Left and right shift on $l^2(\mathbb{N})$
 - Right shift operator