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# A construction of unitary linear systems on the right half complex plane\*

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**Abstract.** A construction of unitary linear systems is given when there exists a reproducing kernel Hilbert space  $\mathcal{L}$  contained in the Hardy space on  $\mathbf{C}^+$  and

$$T : f(z) \rightarrow \frac{1+z}{1-z}f(z) - \frac{2f(1)}{1-z}$$

is unitary on  $\mathcal{L}$ .

In particular, numerical simulations will be performed in order to extract the critical epidemiological features of the solution.

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