

THE SOLUTION TO A PROBLEM IN LINEAR CHAIN RECURRENCE

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We exhibit the existence of continuous (and even invertible) linear operators acting on Banach (and even Hilbert) spaces whose restriction to their respective closed linear subspaces of chain recurrent vectors are not chain recurrent operators. This example completely solves in the negative a problem posed in [1] by N. C. Bernardes Jr. and A. Peris on chain recurrence in Linear Dynamics. The results exhibited along this talk can be found in [2], which is a joint work with Dimitris Papathanasiou.

REFERENCES

- [1] N. C. Bernardes Jr. and A. Peris. On shadowing and chain recurrence in linear dynamics. *Advances in Mathematics*, 441 (2024): 109539.
- [2] A. López-Martínez and D. Papathanasiou. Shifts on trees versus classical shifts in chain recurrence. *Journal of Differential Equations*, 433 (2025): 113230.