Dynamics of translation semigroups on directed metric trees

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This talk will explore the dynamics of the translation semigroup when it acts on suitably defined weighted L^p-spaces on directed metric trees, establishing a bridge between the research by Grosse-Erdmann and Papathanasiou on hypercyclicity and chaos for backward shift operator on directed trees and the investigations by Kramar and Sikolya, and by Dorn et al., who have focused on transport equations in infinite networks.

The initial analysis will focus on identifying the specific conditions on the weights that guarantee the strong continuity of the translation semigroup. Following this, hypercyclicity and mixing properties will be addressed.

Joint work with Álvaro Vargas Moreno.

References

[1] Mangino, E. and Vargas Moreno, A., Dynamics of translation semigroups on directed metric trees, *Preprint*