S-adic characterization of ternary dendric shift spaces

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Résumé

Minimal dendric shift spaces generalize both Arnoux-Rauzy spaces and interval exchanges. They were first studied by Berthé et al. in a series of articles and are defined using the notion of extension graphs. These graphs describe the extensions of a (finite) word by letters. It has been proven that this family is stable under derivation. Iterating this result leads to the construction of particular S-adic representations, i.e. sequences of morphisms such that the shift space can be seen as the image of that sequence.
The notion of S-adic representation can be used to characterize families of shift spaces. For example, Sturmian spaces are exactly the shift spaces having a non eventually constant S-adic representation using only two given morphisms.
In this talk, we study the S-adic representations of minimal dendric spaces obtained as above to give an S-adic characterization of minimal dendric shift spaces. We focus on the case where the alphabet contains three letters to represent this characterization in a graph with two vertices.

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