

## CATEGORY OF VILENKIN–KUZNETSOV– SMORODINSKY–SMIRNOV TREES

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### S u m m a r y

First, we briefly review the definitions and the basic properties of operads and trees. There are many useful types of operads, and each type is determined by the choice of two categories: basic symmetric monoidal category  $(\mathcal{C}, \boxtimes)$ , which supports the classical linear operads, and a category of graphs  $\Gamma$  reflecting the combinatorics of operadic data and axioms [1–6]. From this viewpoint, the specific operad is a functor  $\Gamma \rightarrow \mathcal{C}$ . Second, our aim is the construction of the category of Vilenkin–Kuznetsov–Smorodinsky–Smirnov (VKSS) trees, which contains VKSS-trees as objects and morphisms generated by a rotation of the  $n$ -dimensional space and transforming functions of VKSS-trees.