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**A categorical generalization of Klumpenhouwer networks.** (English) Zbl 1321.00088

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**Summary:** This article proposes a functorial framework for generalizing some constructions of transformational theory. We focus on Klumpenhouwer networks for which we propose a categorical generalization via the concept of set-valued poly-K-nets (henceforth PK-nets). After explaining why K-nets are special cases of these category-based transformational networks, we provide several examples of the musical relevance of PK-nets as well as morphisms between them. We also show how to construct new PK-nets by using some topos-theoretical constructions.

For the entire collection see [[Zbl 1315.00045](#)].

**MSC:**

**00A65** Mathematics and music

**18A30** Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)

**18B25** Topoi

Cited in 5 Documents

**Keywords:**

transformational theory; K-nets; PK-nets; category theory

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**References:**

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