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# An online bin-packing problem with an underlying ternary structure

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## Abstract

Following an original idea by Knödel, an online bin-packing problem is considered where the large items arrive in double-packs. The dual problem where the small items arrive in double-packs is also considered. The enumerations have a ternary random walk flavour, and for the enumeration, the kernel method is employed.

*Keywords:* Knödel walks, third-order recursion, kernel method, coefficient extraction, state diagram.

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# Spletni problem pakiranja v koše s ternarno strukturo

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## Povzetek

Sledec izvorno Knödlovi ideji se spletni problem pakiranja v koše pojavi takrat, ko veliki predmeti prispejo v dvojnih paketih. Obravnavamo tudi dualni problem, kjer v dvojnih paketih prispejo majhni predmeti. Naštevanja imajo pečat ternarnega naključnega sprehajanja, za naštevanje pa se uporablja metoda jedra.

*Ključne besede:* Knödlovi sprehodi, rekurzija tretjega reda, metoda jedra, ekstrakcija koeficienta, diagram stanja.

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