

# The complement of a subspace in a classical polar space

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## Abstract

In a polar space, embeddable into a projective space, we fix a subspace, that is contained in some hyperplane. The complement of that subspace resembles a slit space or a semiaffine space. We prove that under some assumptions the ambient polar space can be recovered in this complement.

*Keywords:* Polar space, projective space, semiaffine space, slit space, complement.

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# Komplement podprostora v klasičnem polarnem prostoru

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## Povzetek

V polarnem prostoru, vložljivem v projektiven prostor, izberemo podprostor, ki je vložen v neko hiperravnino. Komplement tega podprostora spominja na prostor z režo ali semiafin prostor. Dokažemo, da se da pri določenih predpostavkah ambientni polarni prostor ponovno najti v tem komplementu.

*Ključne besede: Polarni prostor, projektivni prostor, semiafin prostor, prostor z režo, komplement.*

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