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Virtual complete intersections in $\mathbb{P}^1 \times \mathbb{P}^1$. (English) Zbl 1441.13031

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Summary: The minimal free resolution of the coordinate ring of a complete intersection in projective space is a Koszul complex on a regular sequence. In the product of projective spaces $\mathbb{P}^1 \times \mathbb{P}^1$, we investigate which sets of points have a virtual resolution that is a Koszul complex on a regular sequence. This paper provides conditions on sets of points; some of which guarantee the points have this property, and some of which guarantee the points do not have this property.

MSC:

13D02 Syzygies, resolutions, complexes and commutative rings

14M25 Toric varieties, Newton polyhedra, Okounkov bodies

Software:

Macaulay2

Full Text: [DOI](#)

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