

Algebraic invariants of the Eulerian ideal via (T, p) -joins

UC|UP Joint PhD Program in Mathematics

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of the University of Coimbra

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Combinatorial Commutative Algebra — Introduction

Combinatorial objects
(e.g., simplicial complexes, graphs
hypergraphs, convex polytopes, ...).

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Subrings, ideals, and
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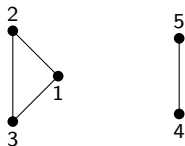
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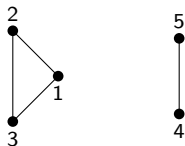
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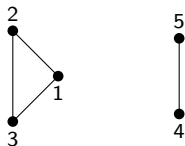
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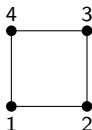
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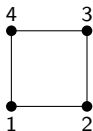
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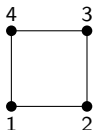
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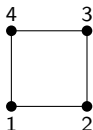
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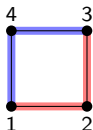
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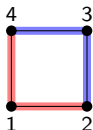
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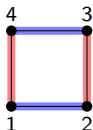
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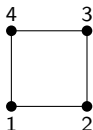
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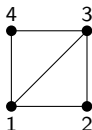
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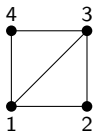
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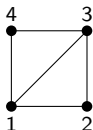
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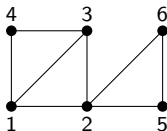
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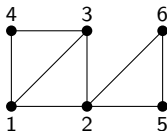
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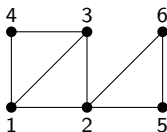
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Eulerian ideal — Examples

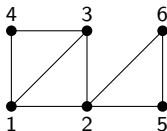
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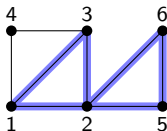
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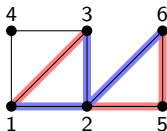
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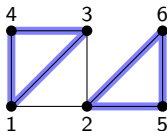
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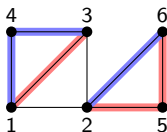
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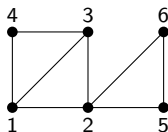
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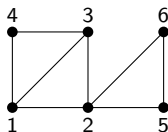


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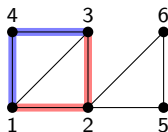
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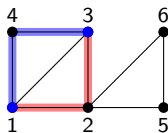
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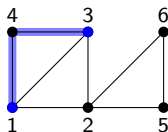
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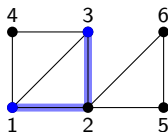
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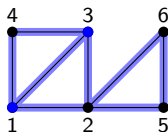
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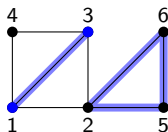
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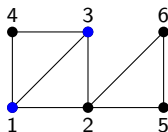
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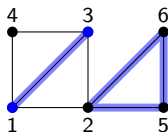
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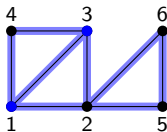
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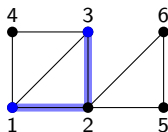
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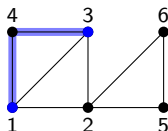
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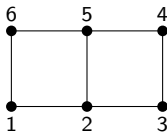
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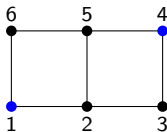
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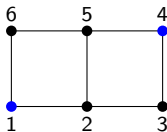
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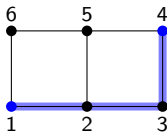
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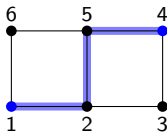
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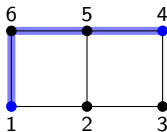
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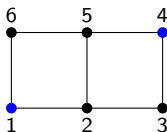
Eulerian ideal — equivalent (T, p) -joins

Definition

If $\exists J_0, \dots, J_r$ minimum cardinality (T, p) -joins:

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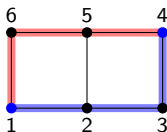
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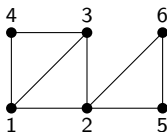
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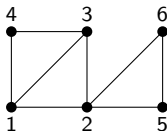


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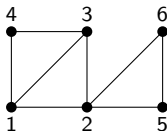
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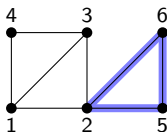
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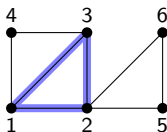
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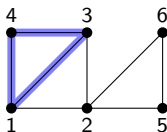
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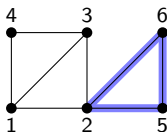
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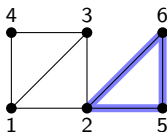
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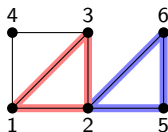
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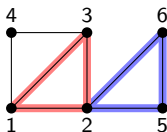
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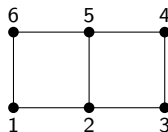
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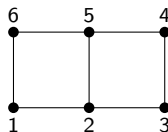
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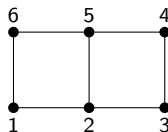
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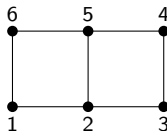
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Neves, Varejão (2024). *arXiv*.

Thank you for your attention !

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