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Enschede - The Netherlands

Towards Platforms

How to run applications that do not yet exist

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Mapping Applications to MPSoCs 2009

29 June 2009



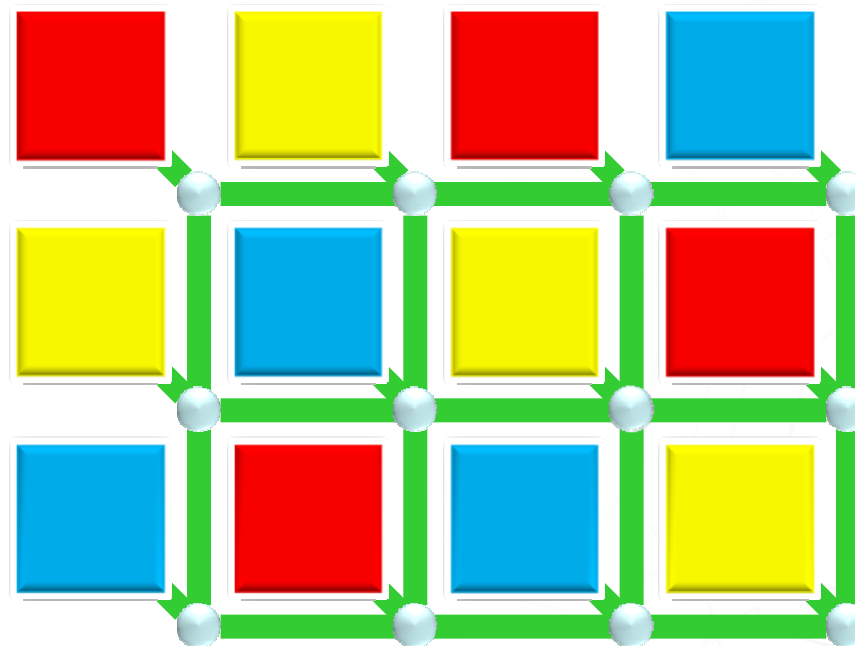
Computer Architecture for Embedded Systems (CAES) group
Faculty of Electrical Engineering, Mathematics and Computer Science

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<http://caes.ewi.utwente.nl>



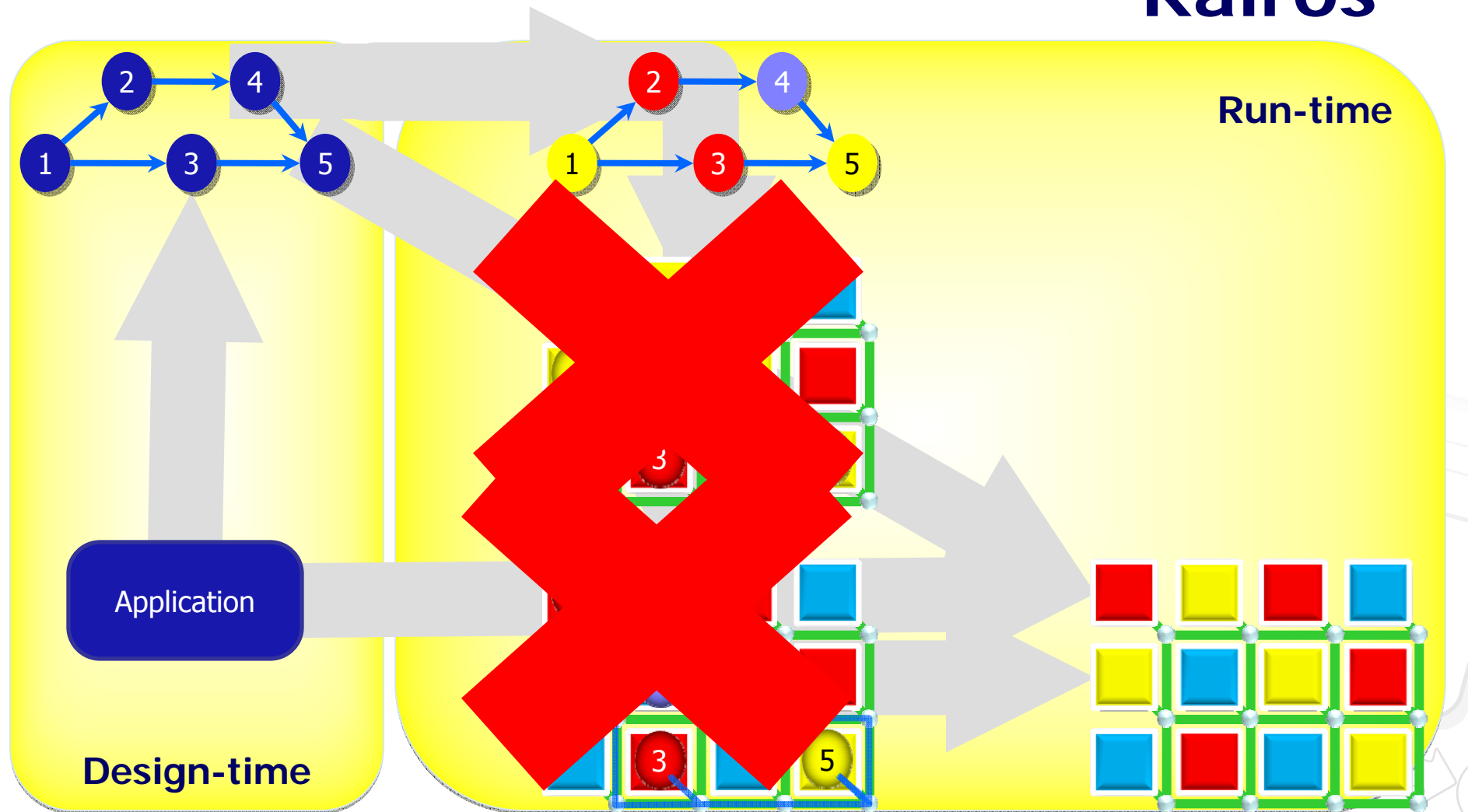
The Goal



Application



Kairos



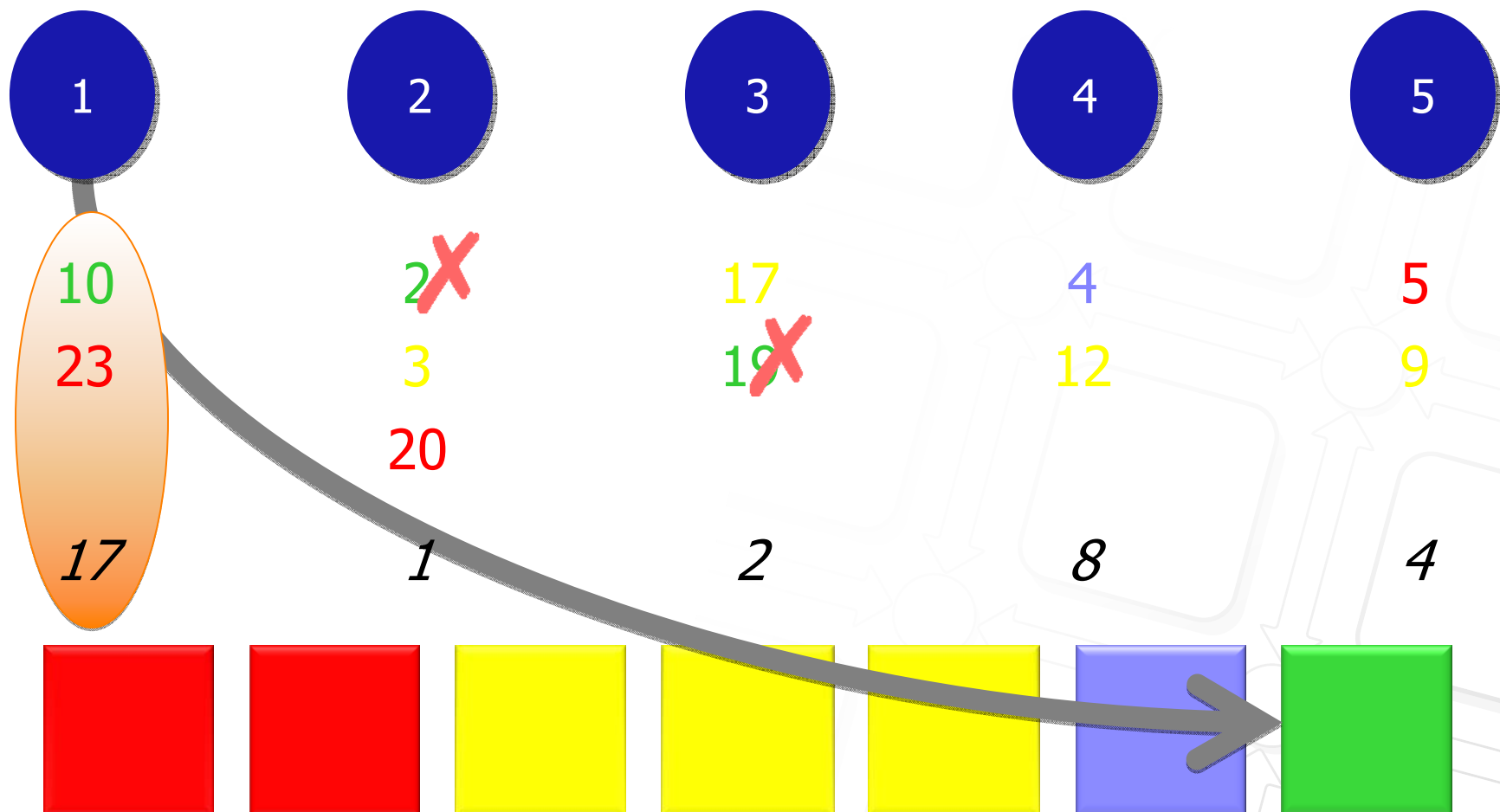


Step 1:

BINDING



Binding: Martello & Toth

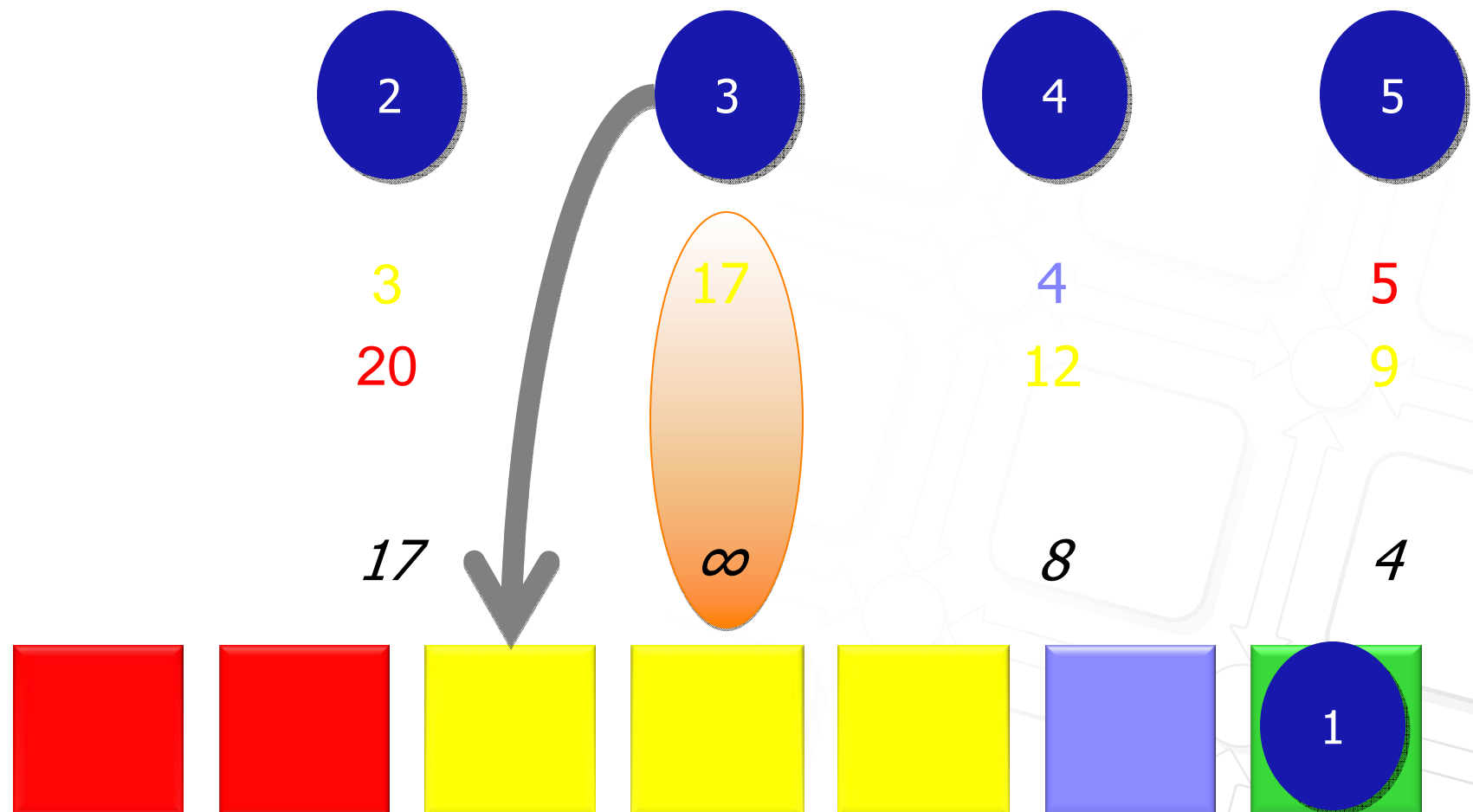


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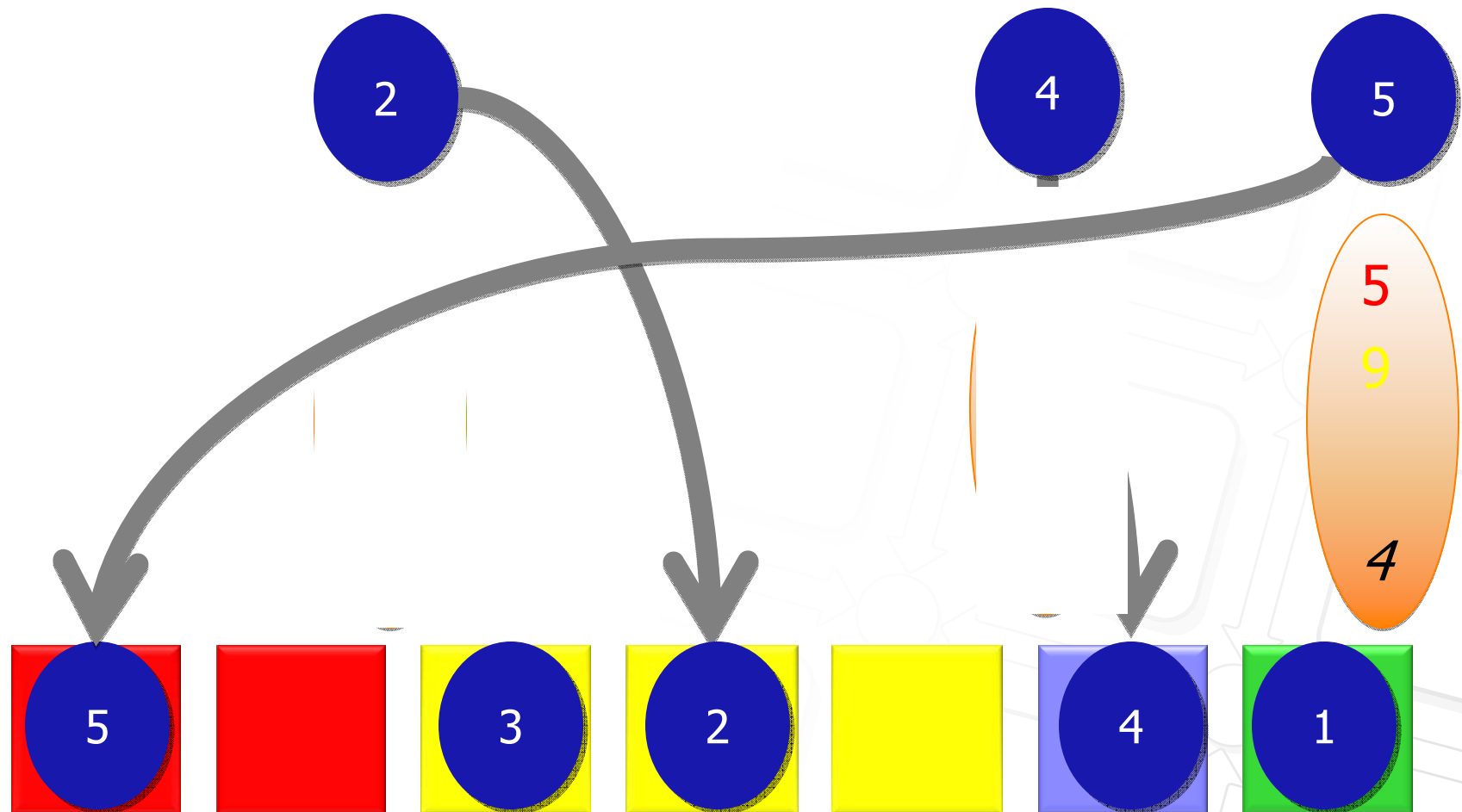


Binding: Martello & Toth





Binding: Martello & Toth



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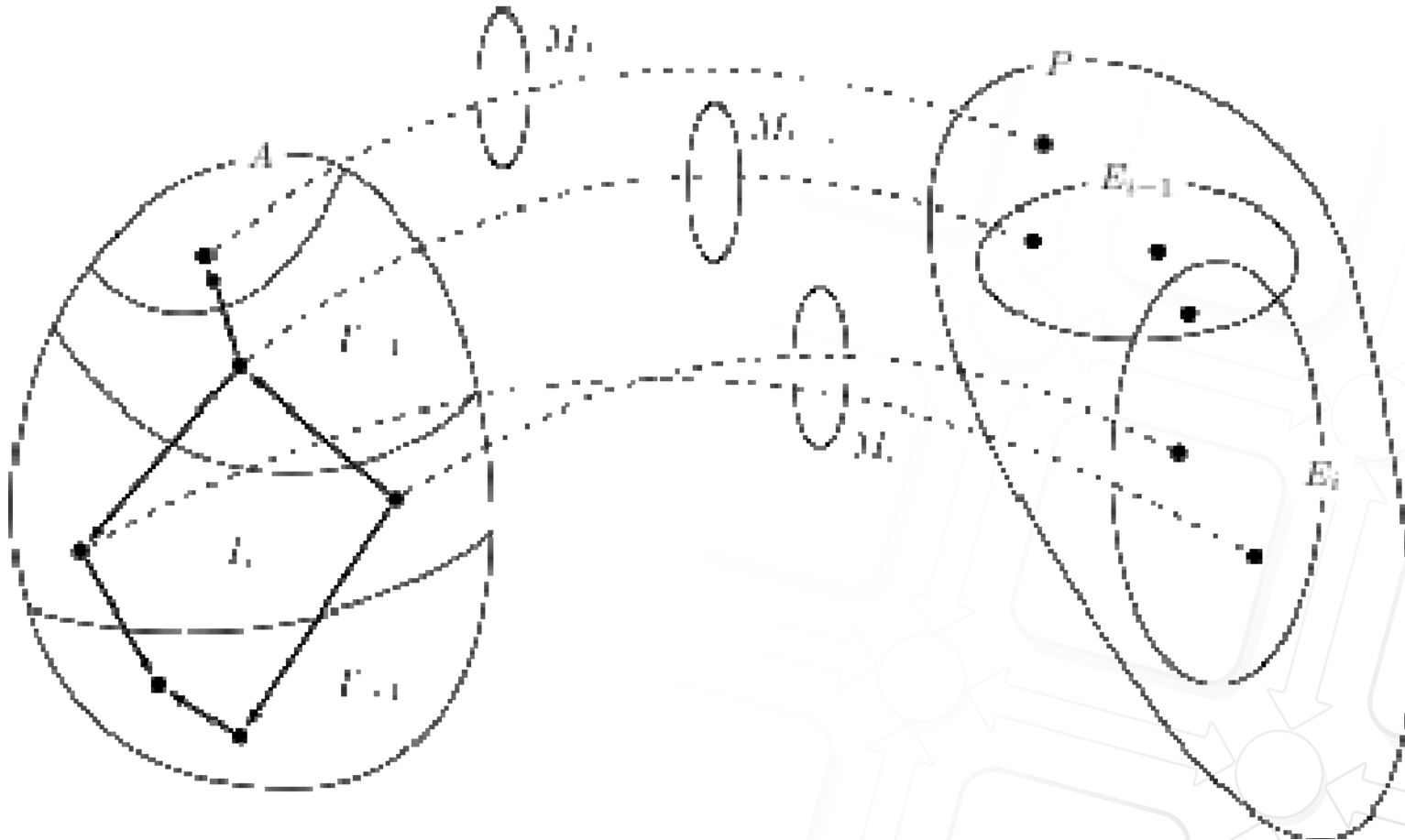
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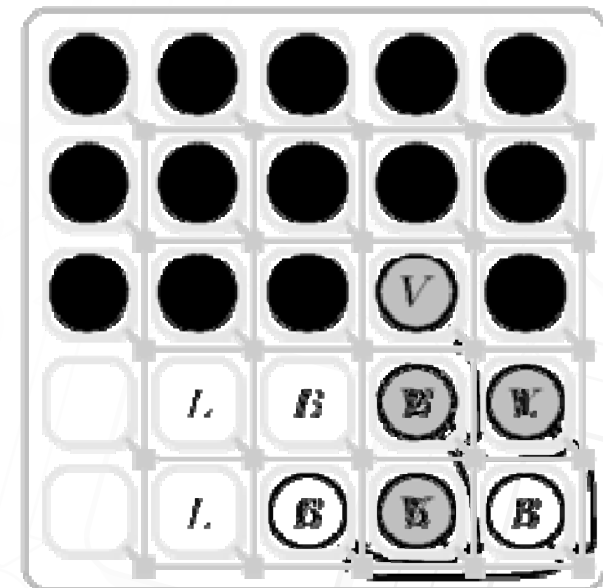
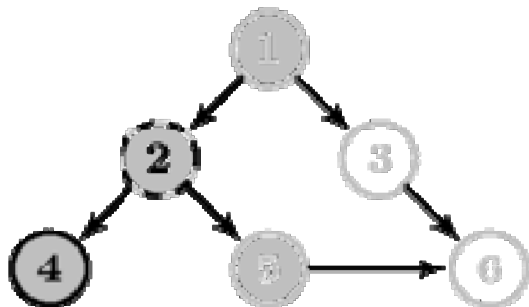
Step 2:

MAPPING

Mapping: Sectioning



Mapping: Example





Step 3:

ROUTING



Routing: Uniform Cost Search

Generally: Dijkstra

Meshes: A^*

Trees: Truncated Branch & Bound

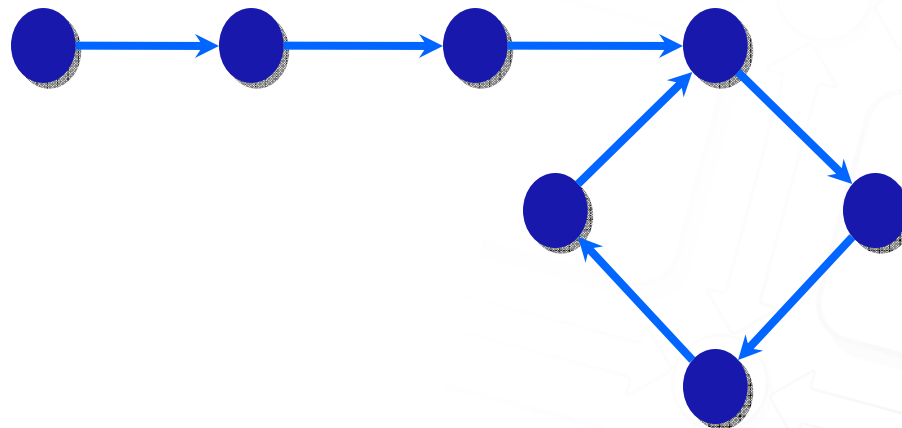


Step 4:

VALIDATION

Validation: SDF analysis

Stuijk, et al. (TU/e)





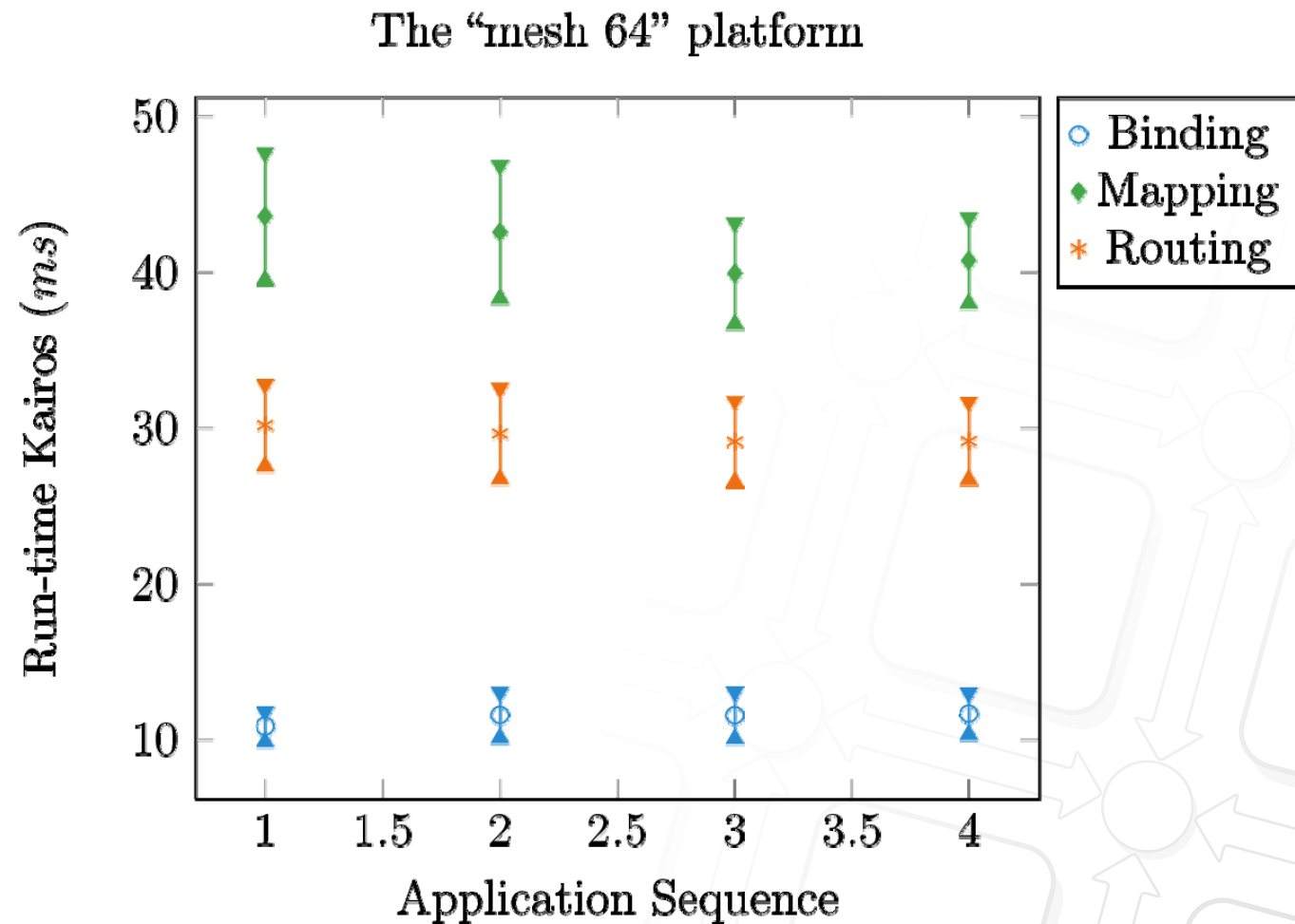
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RESULTS

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Results





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DEMONSTRATION

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Thank You

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