

An External Memory Relational Product

Steffan Christ Sølvesten, Jaco van de Pol

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$\exists \vec{x}. \phi(\dots)$ **(Push)**



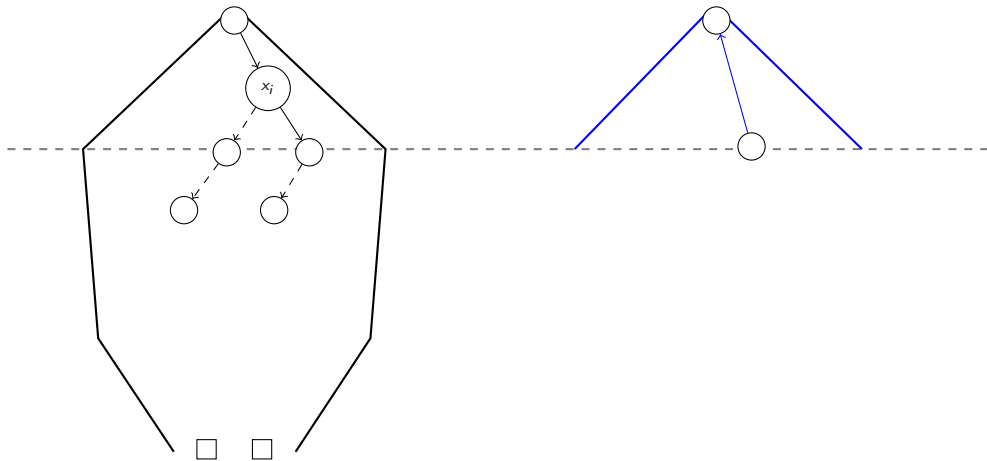
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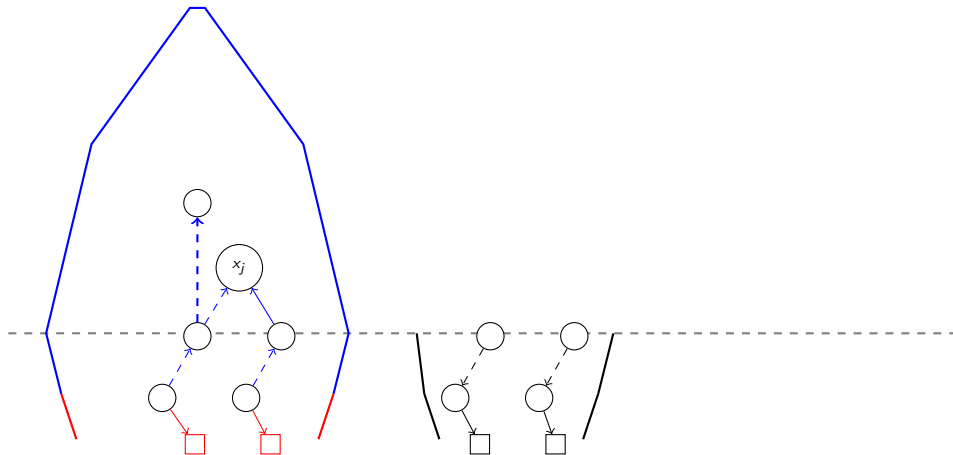
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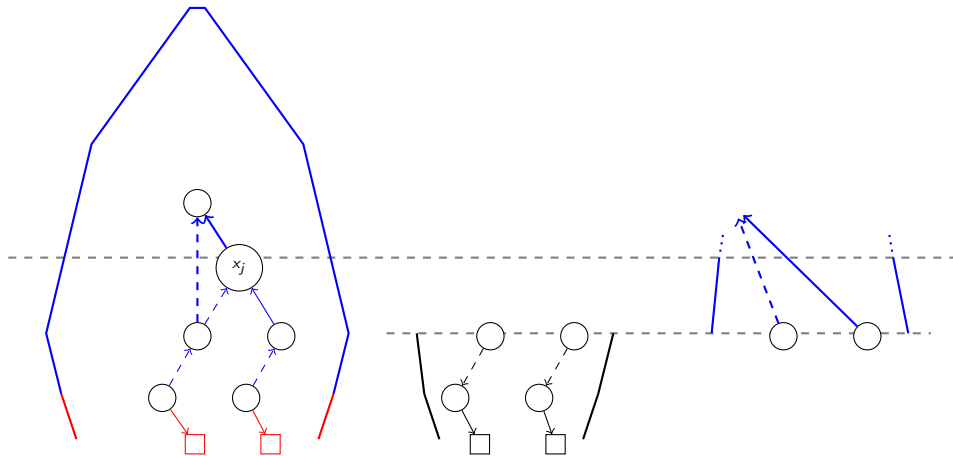
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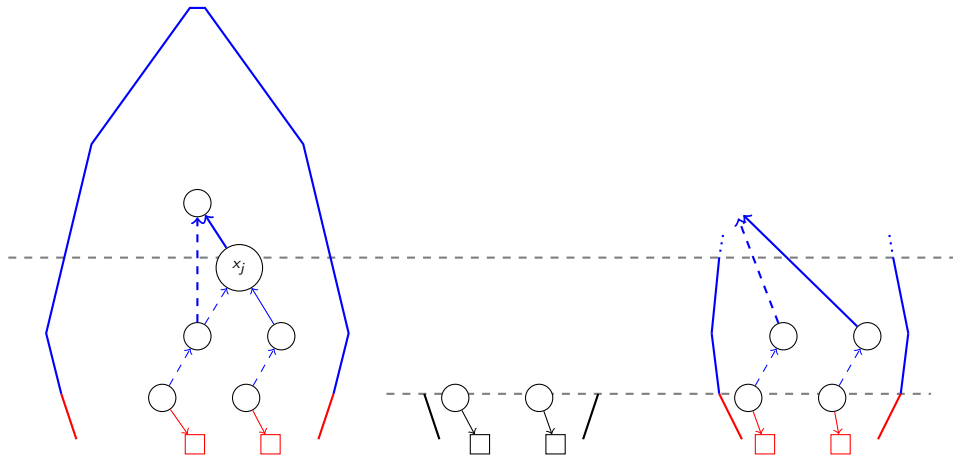
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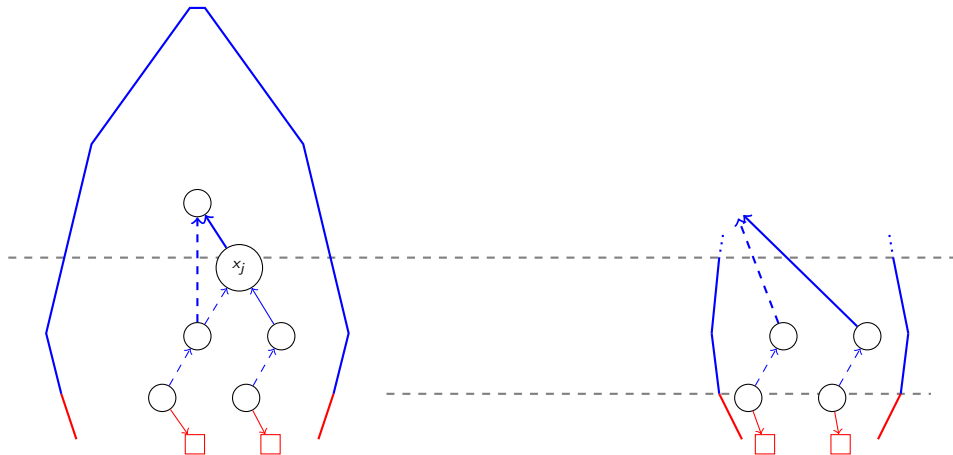
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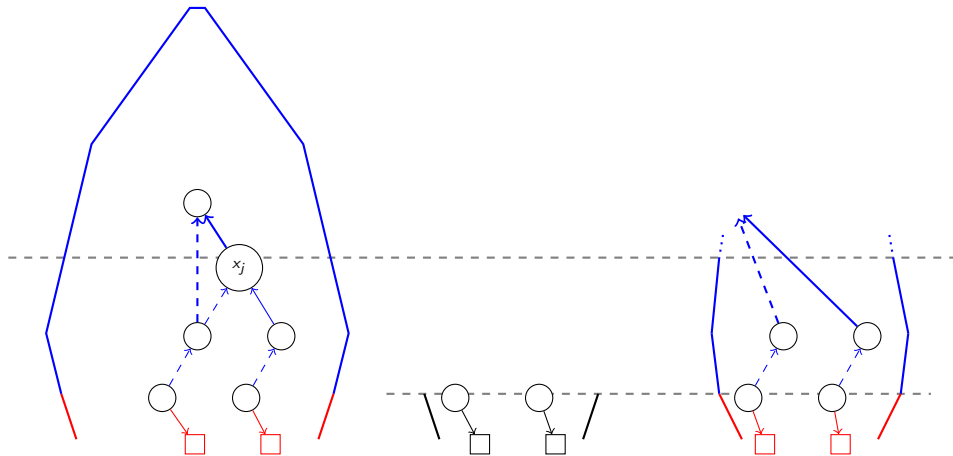
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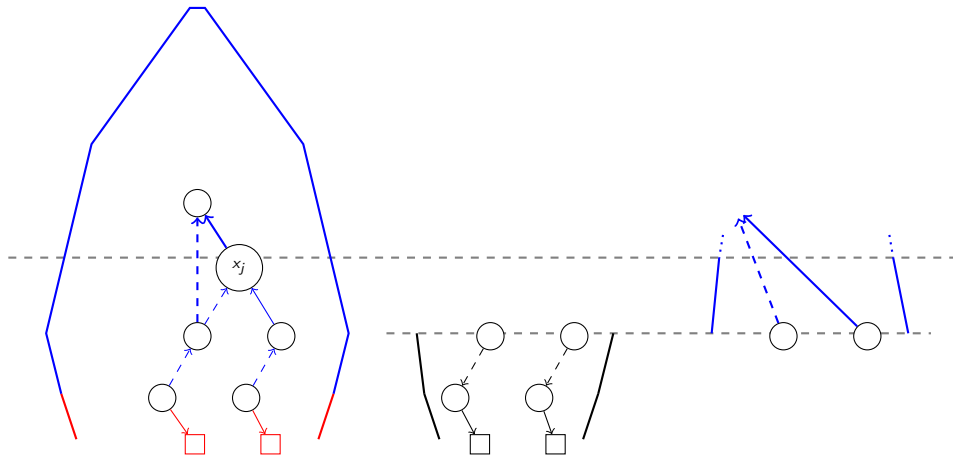
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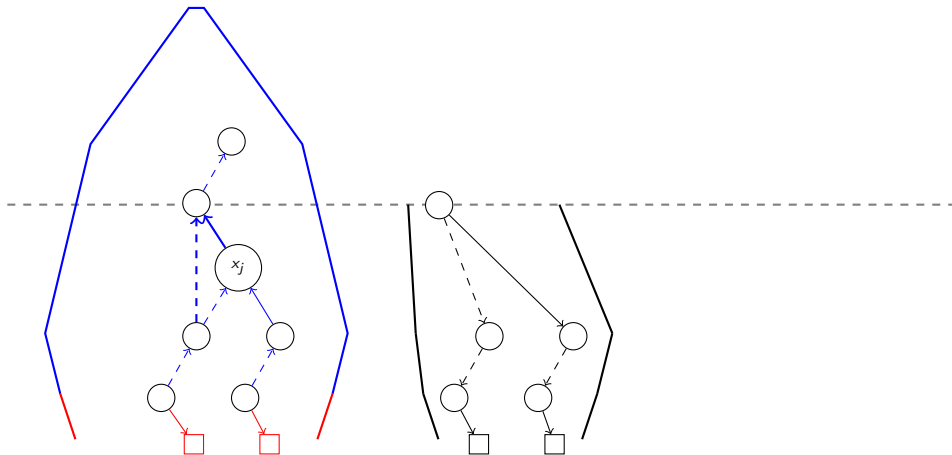
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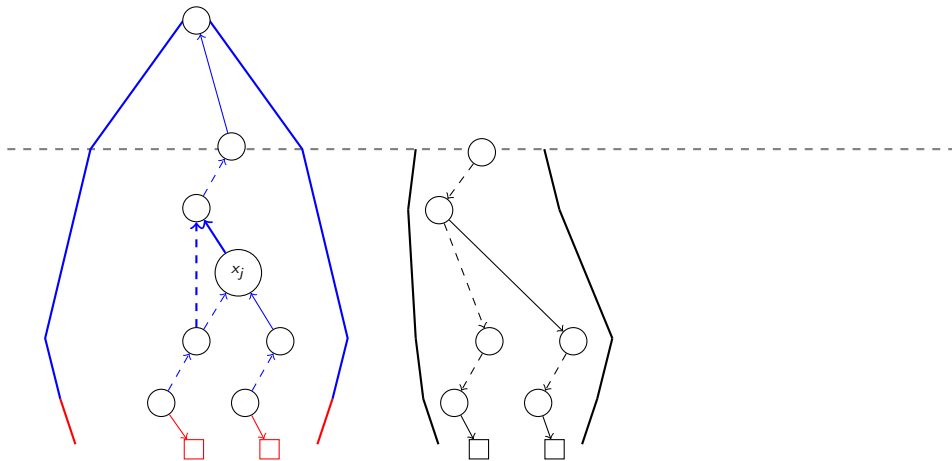
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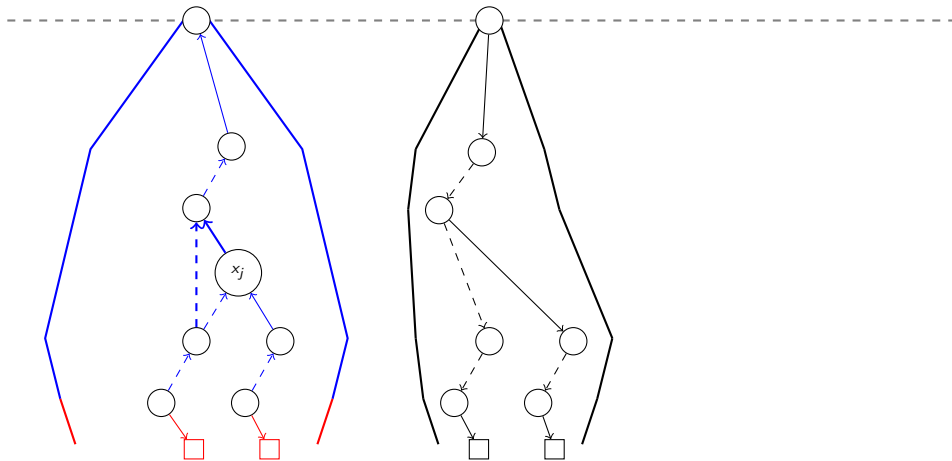
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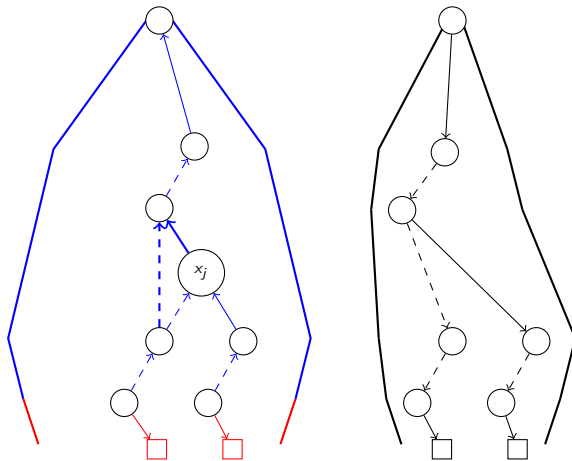
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If π is monotonic

- Apply π in $O(L_N)$ extra time during final $\Omega(N \log N)$ bottom-up Reduce sweep.
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If π is not monotonic

to be continued...