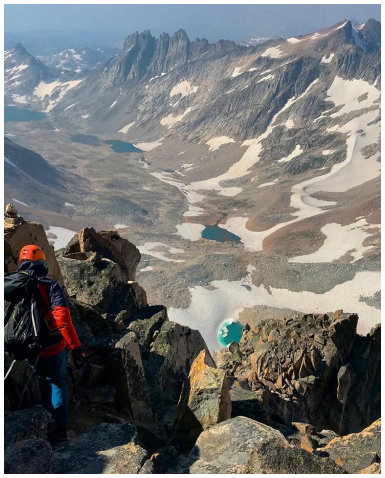
Searching in the Space of Persistence Diagrams

Samuel Micka[1]

April 5th, 2019

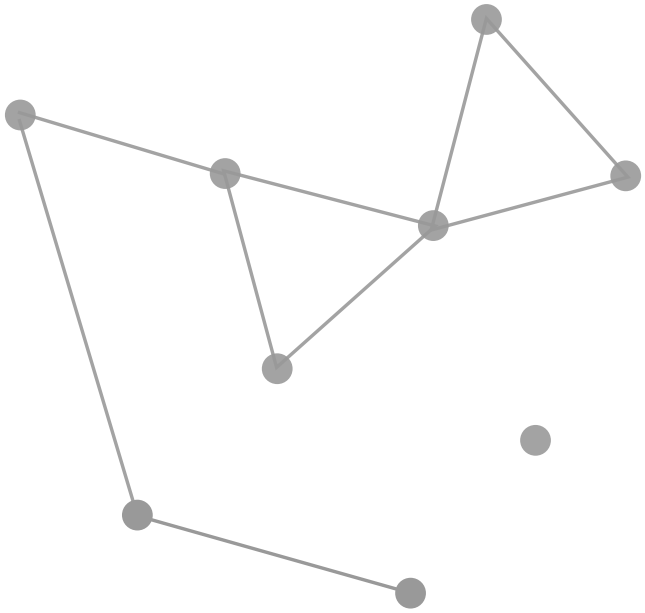
Samuel Micka

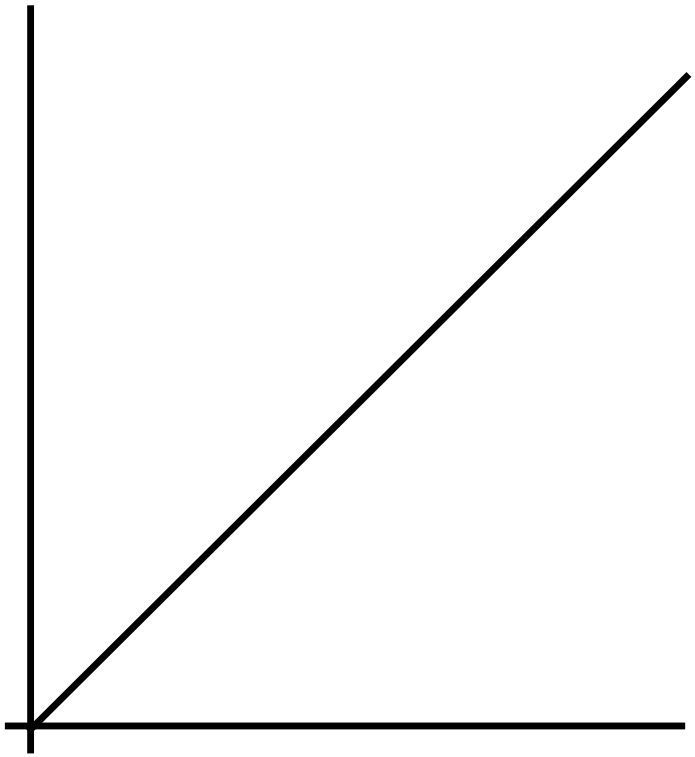
About Me



Persistence

Persistence Diagram





Intuition behind a degree zero persistence diagram.

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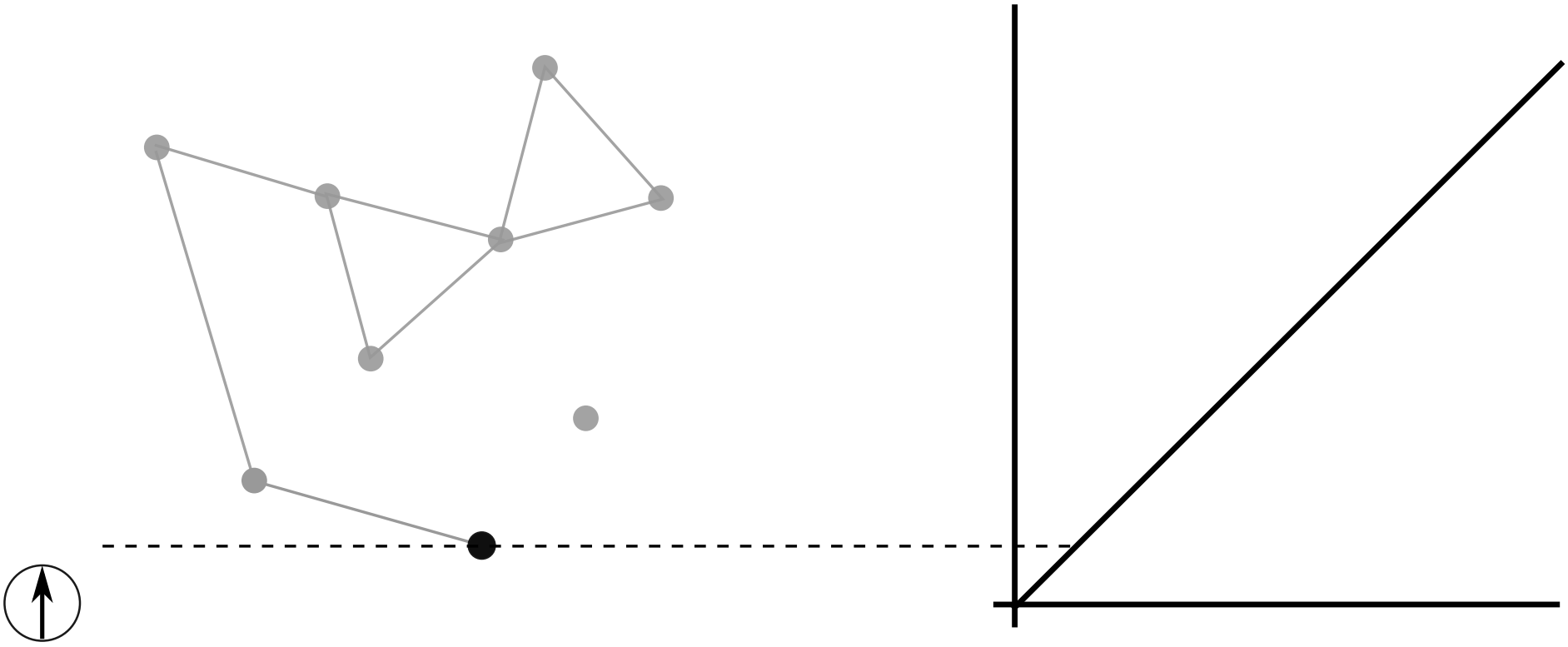

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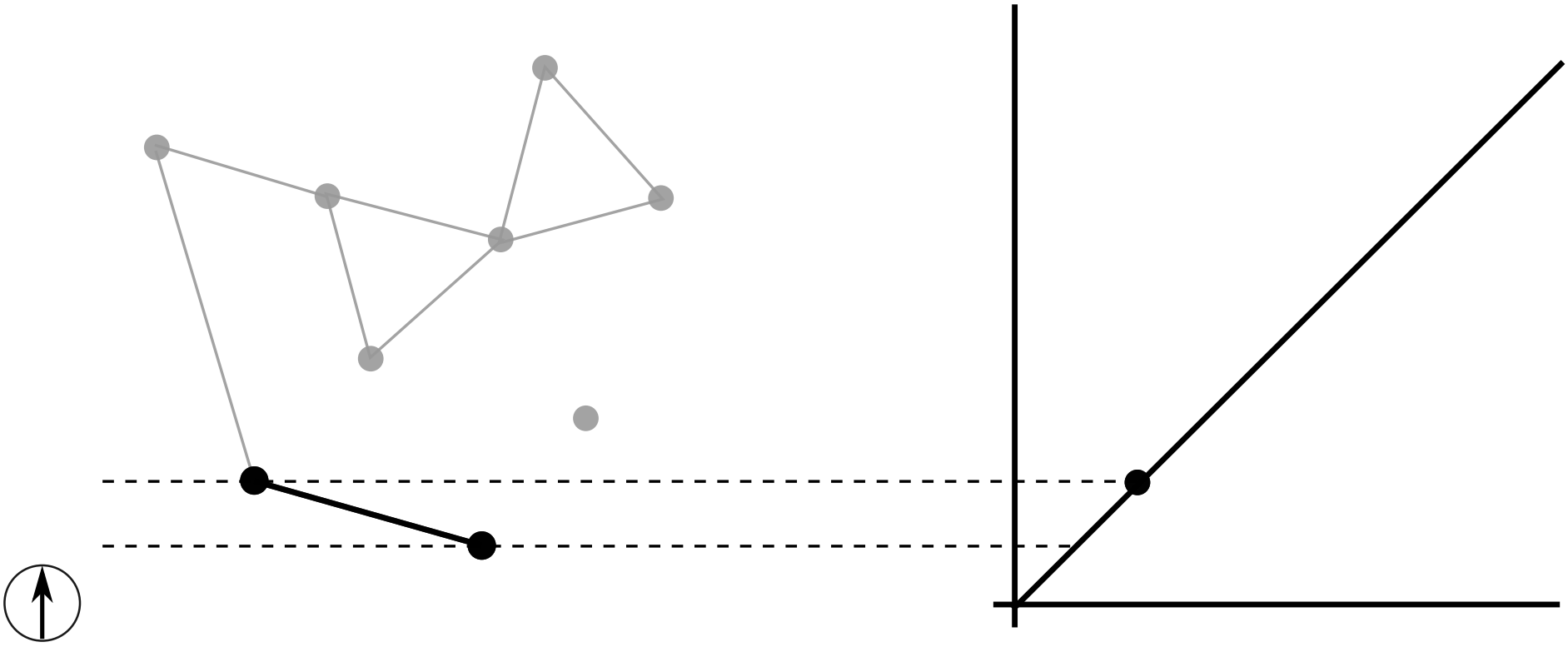

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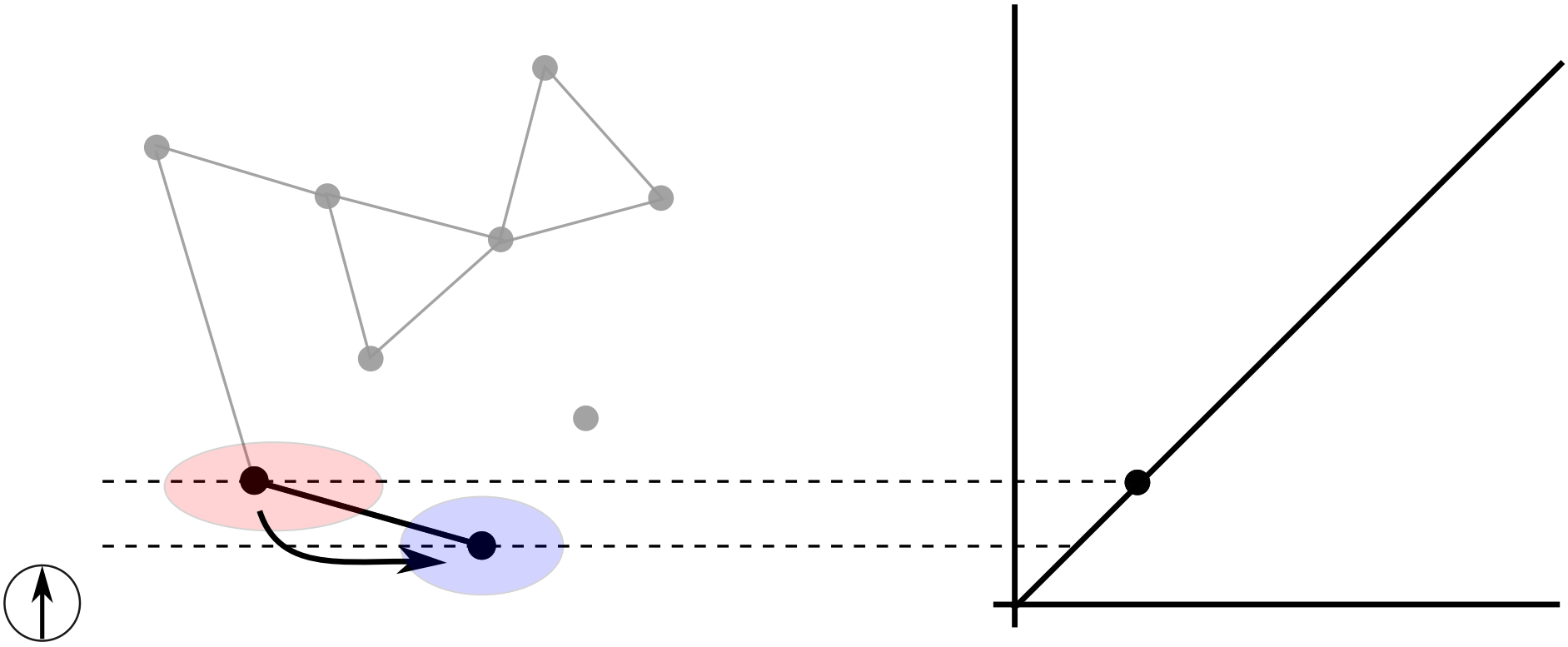

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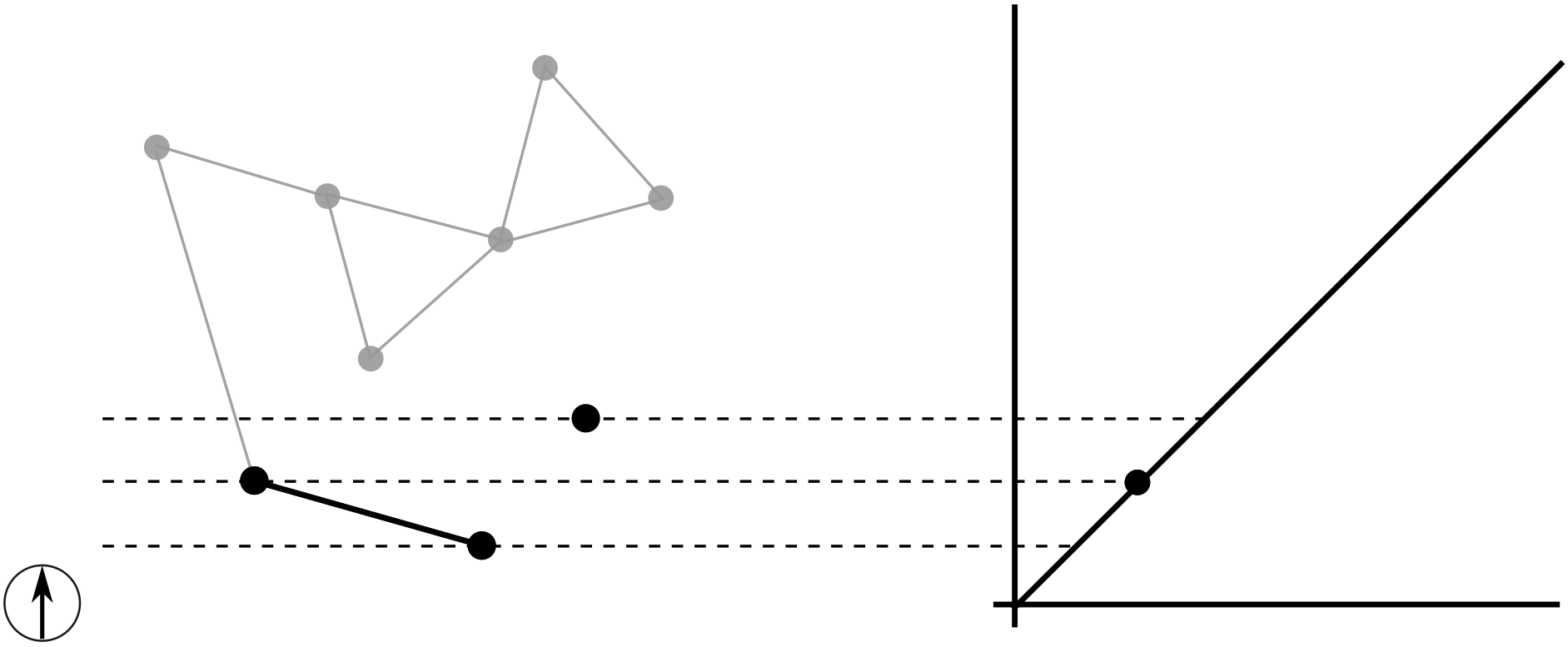

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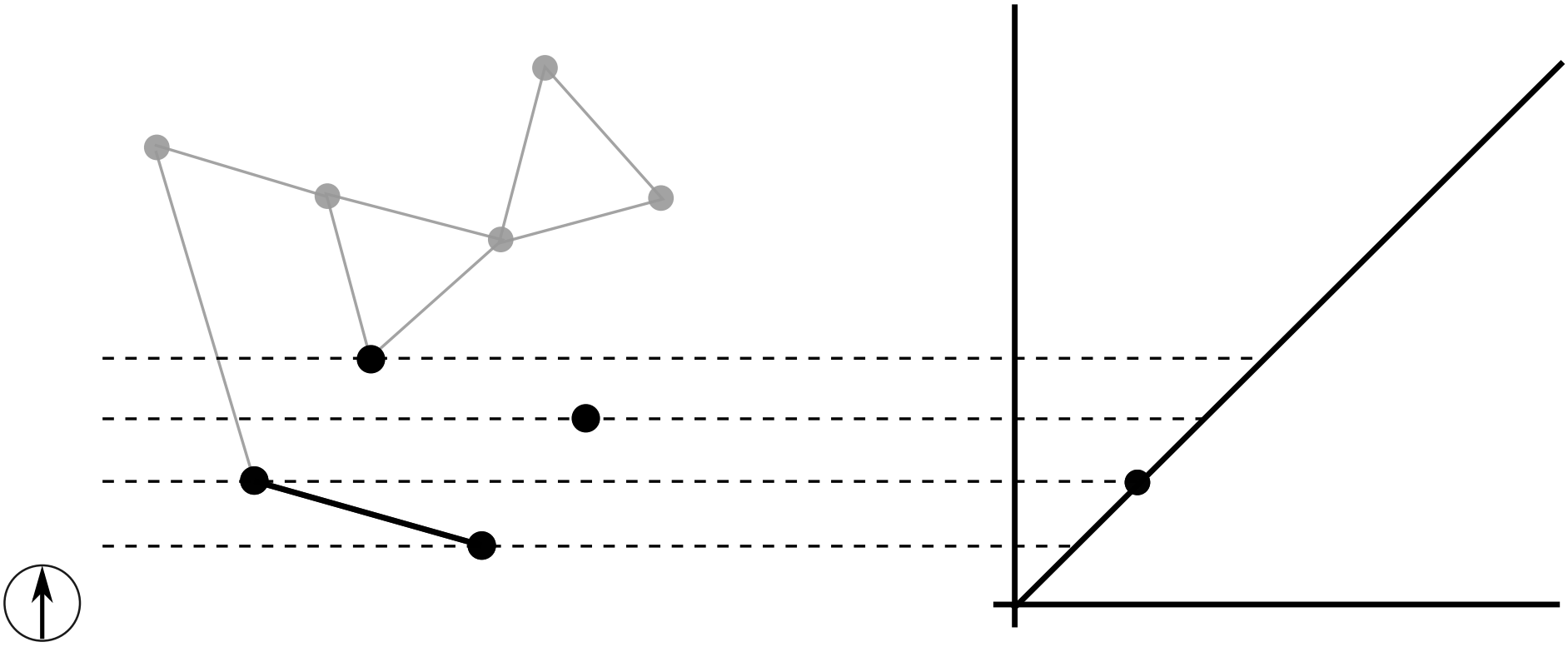

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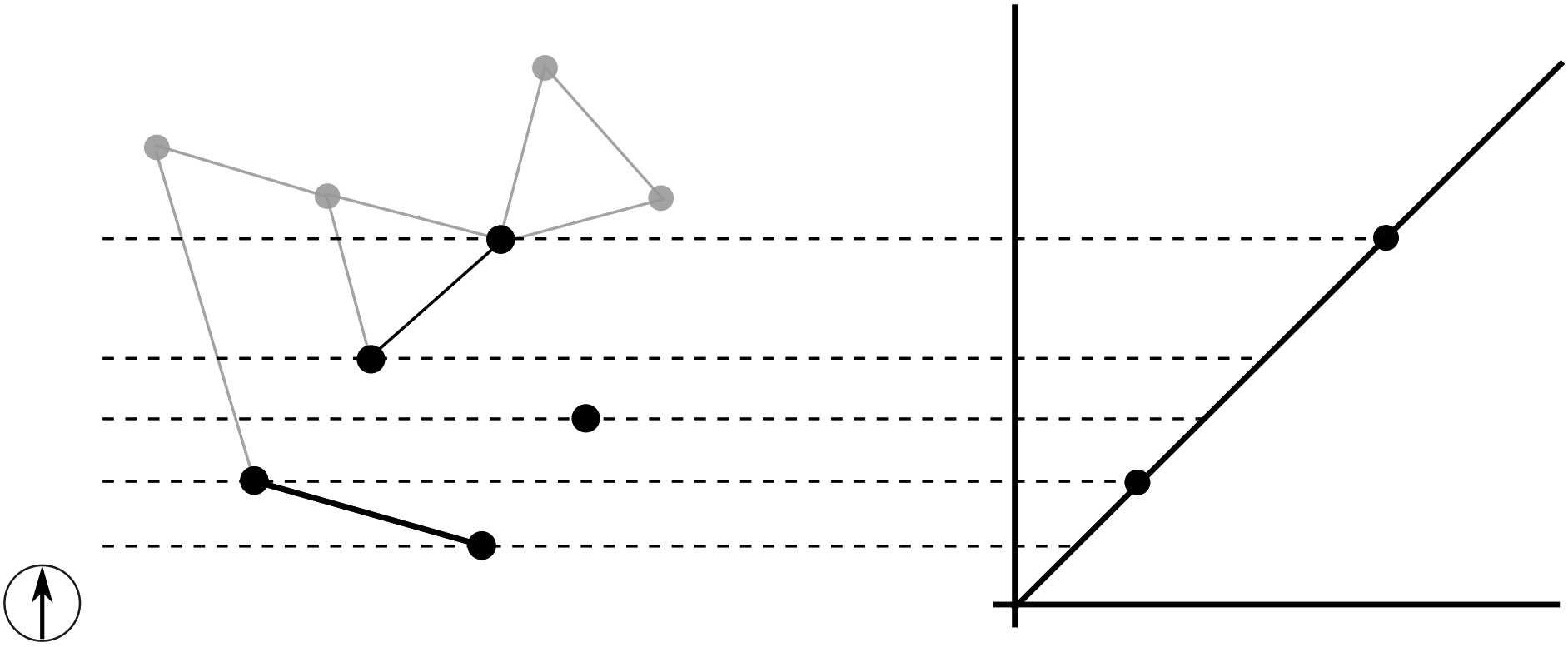

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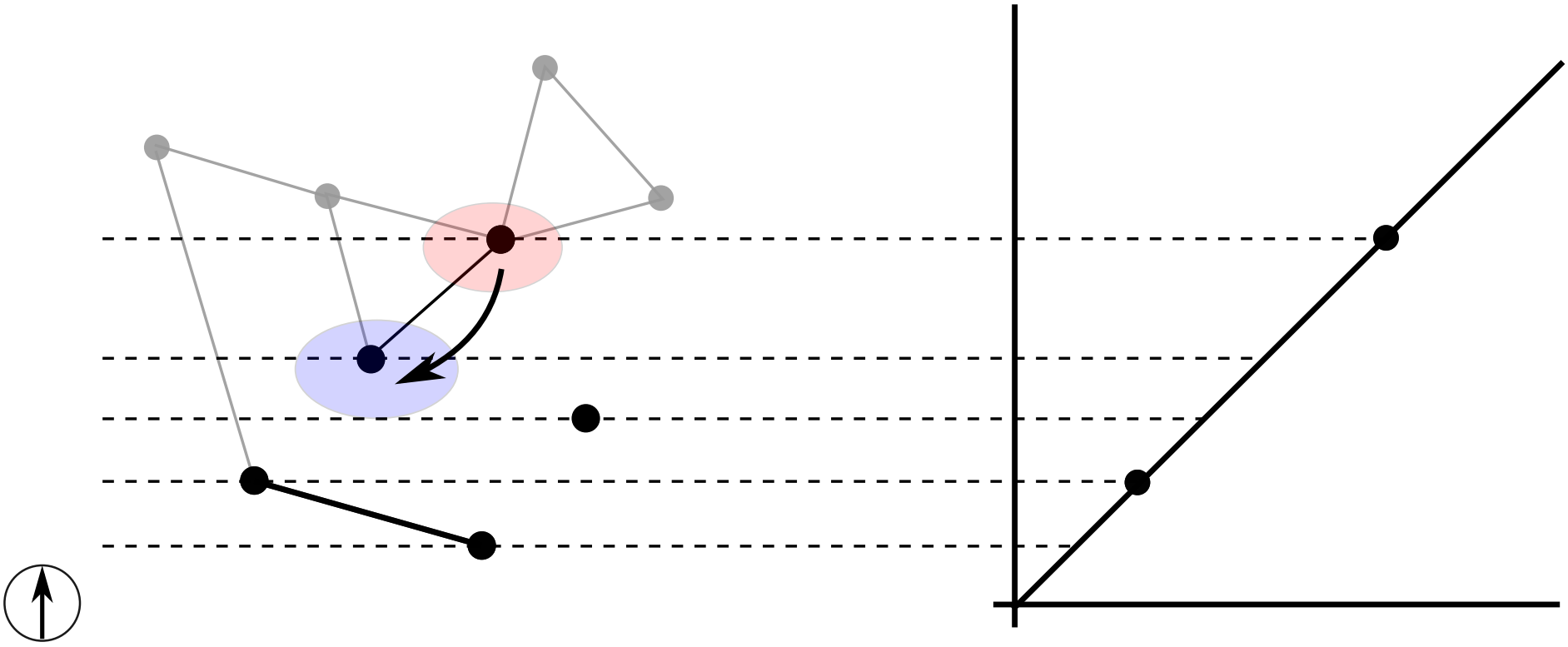

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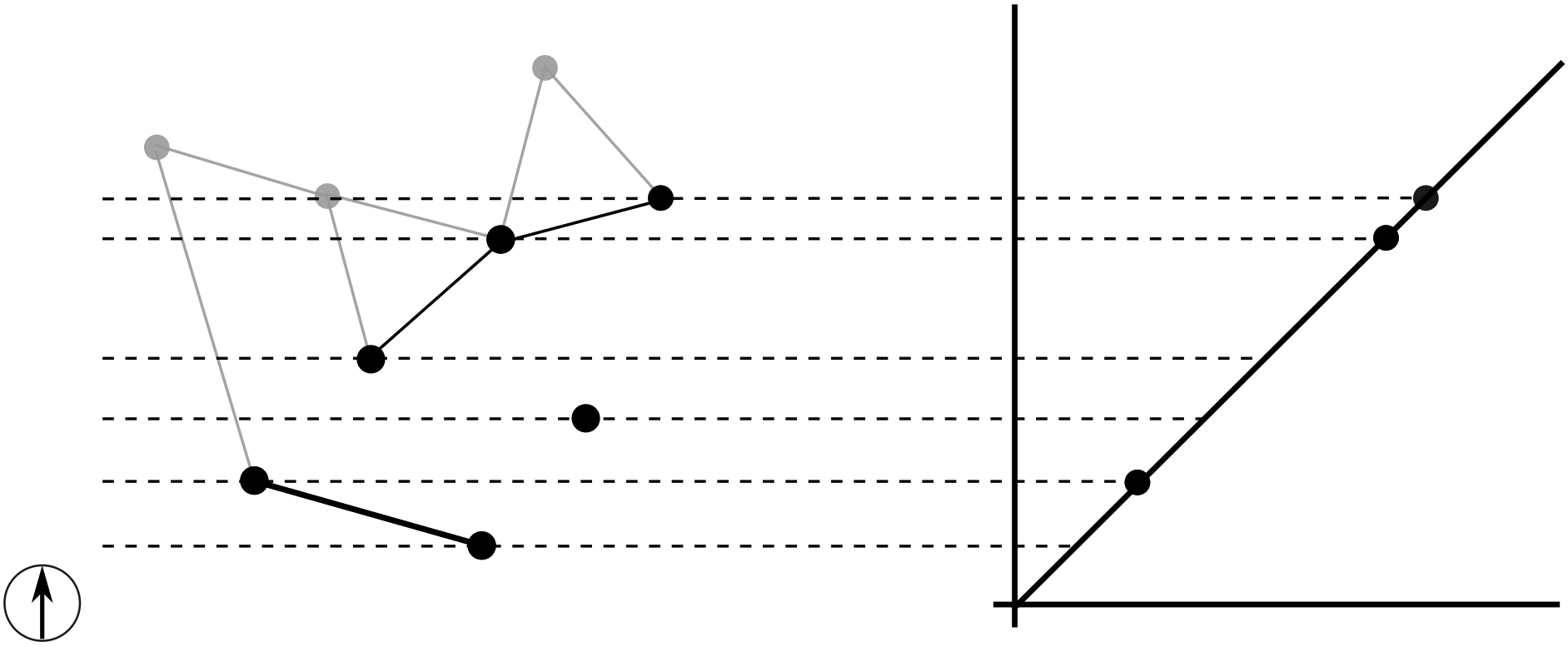

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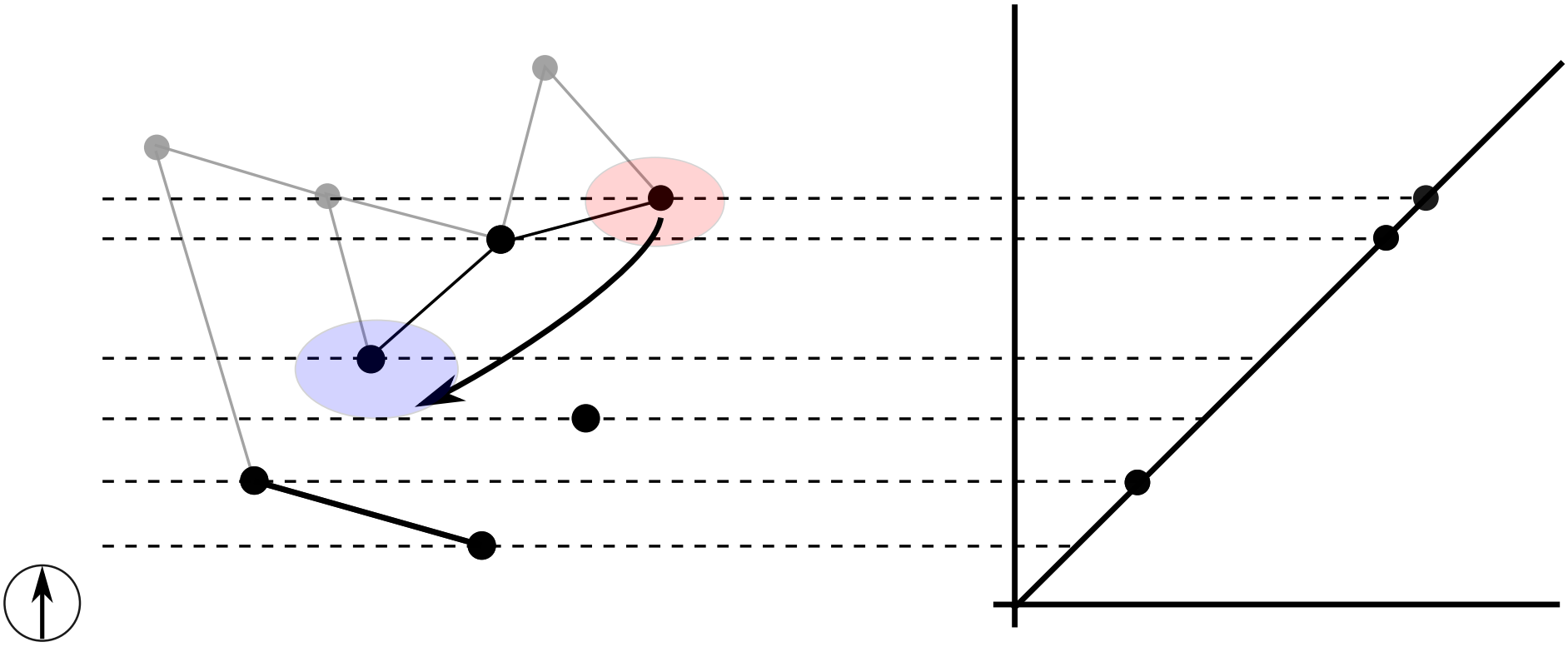

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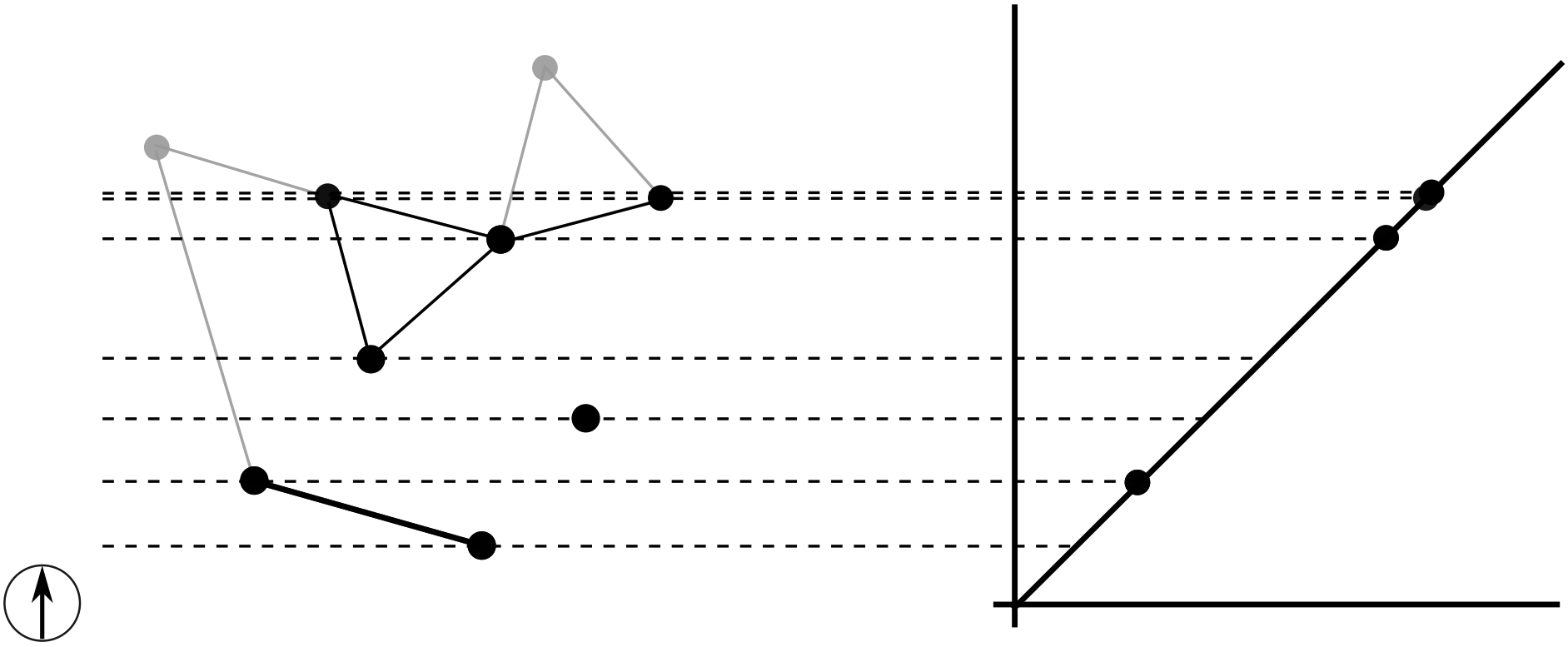

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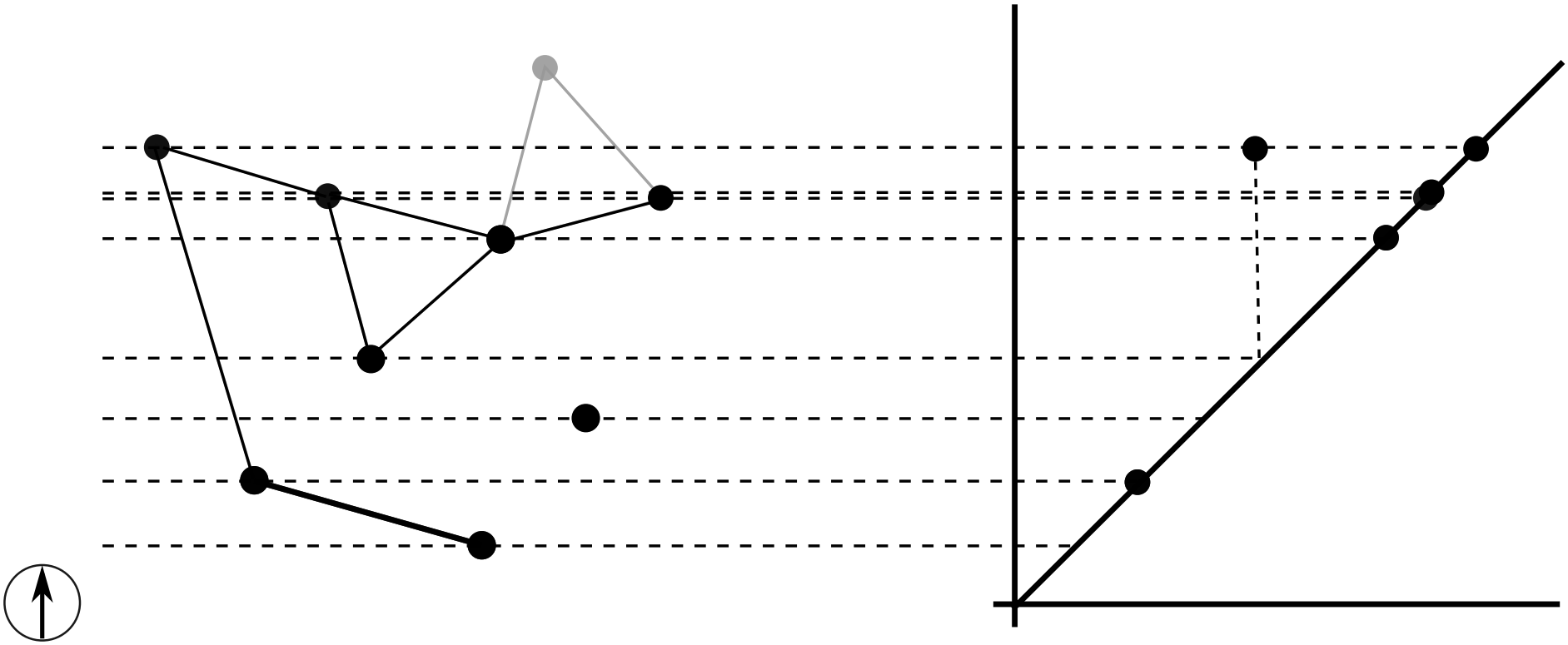

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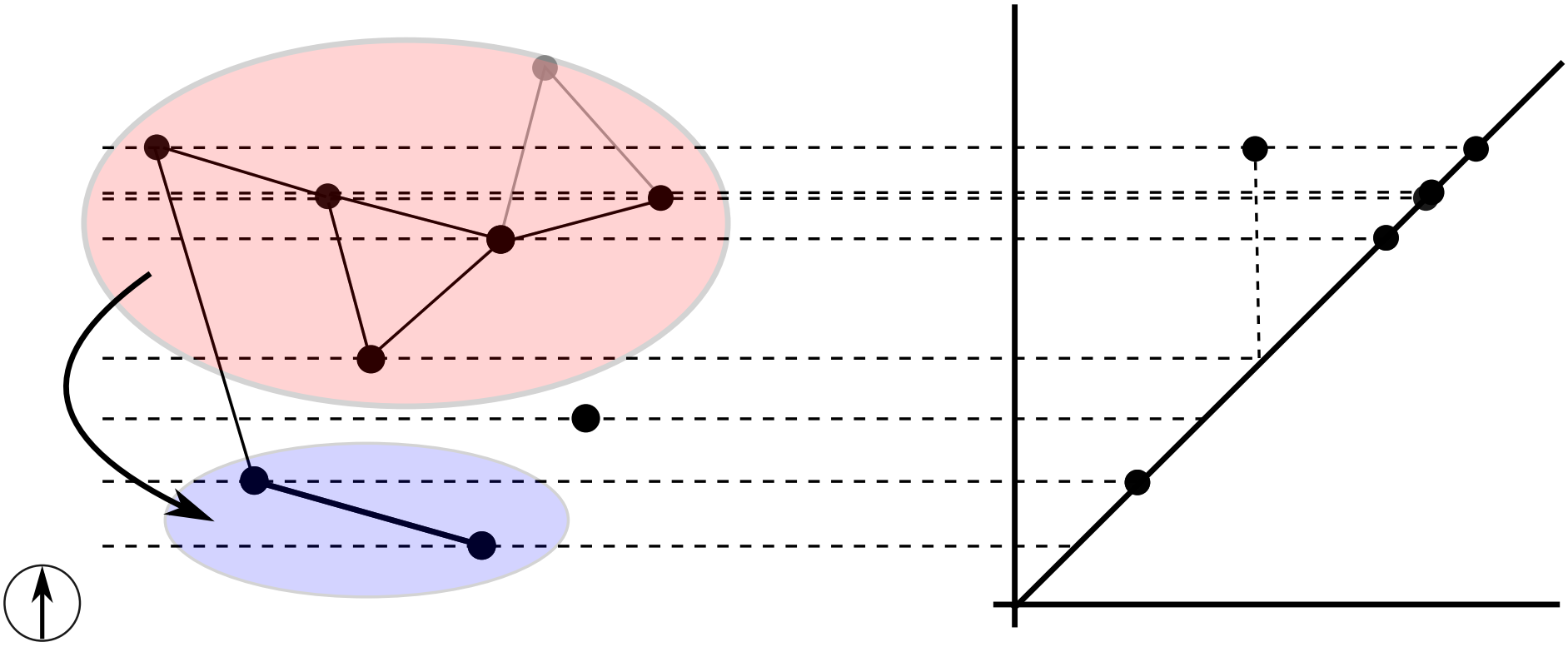

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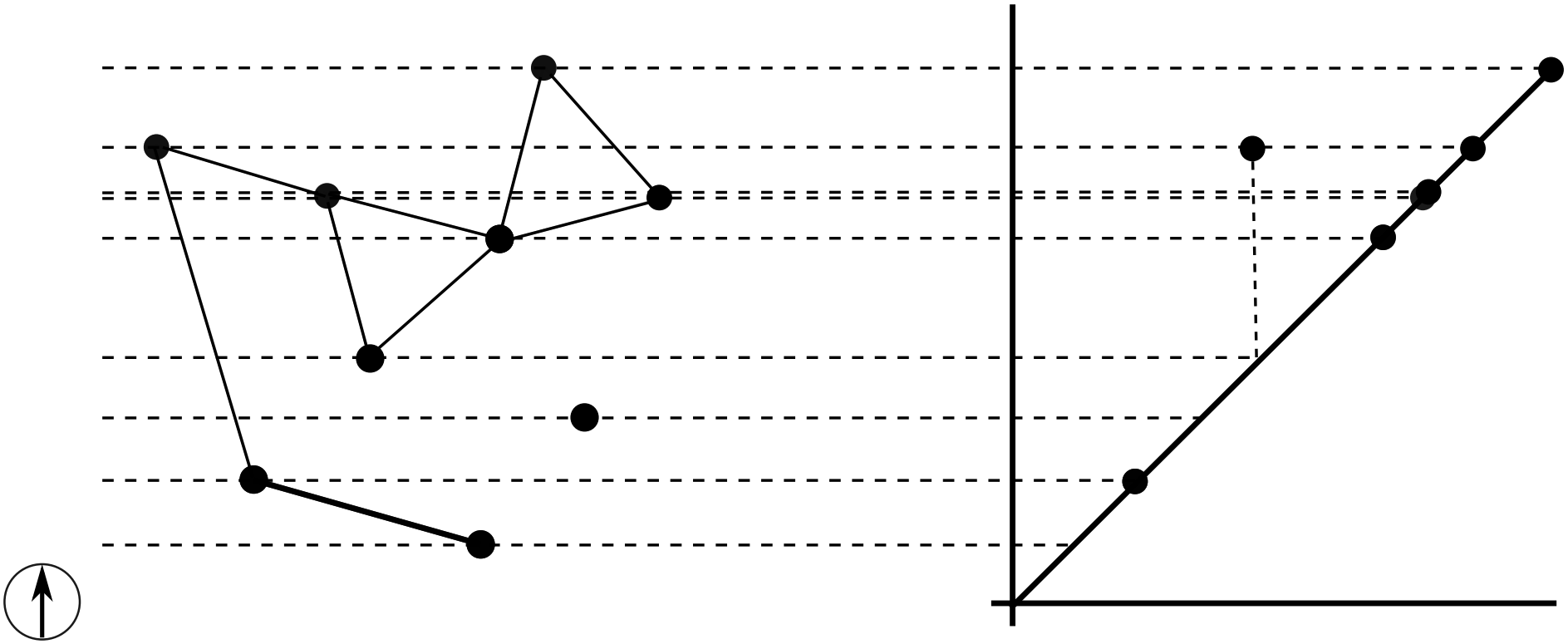

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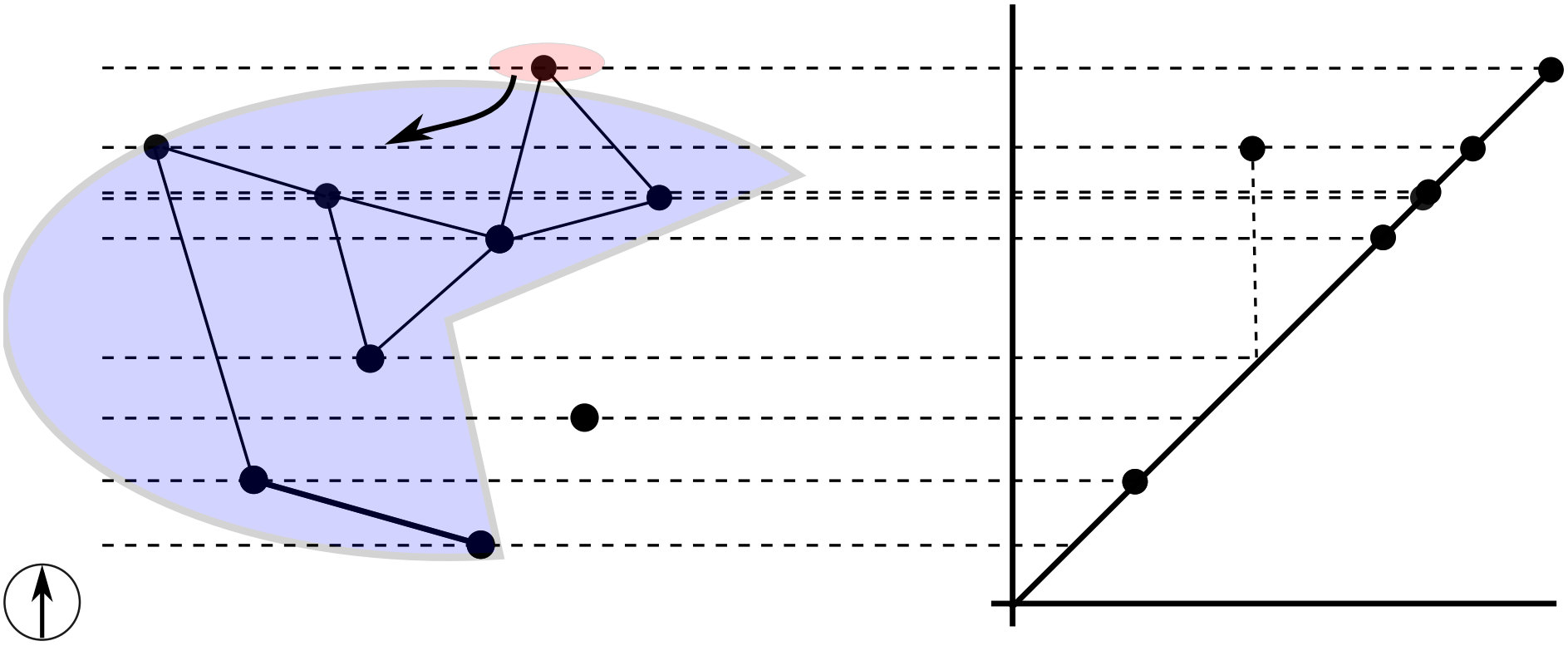

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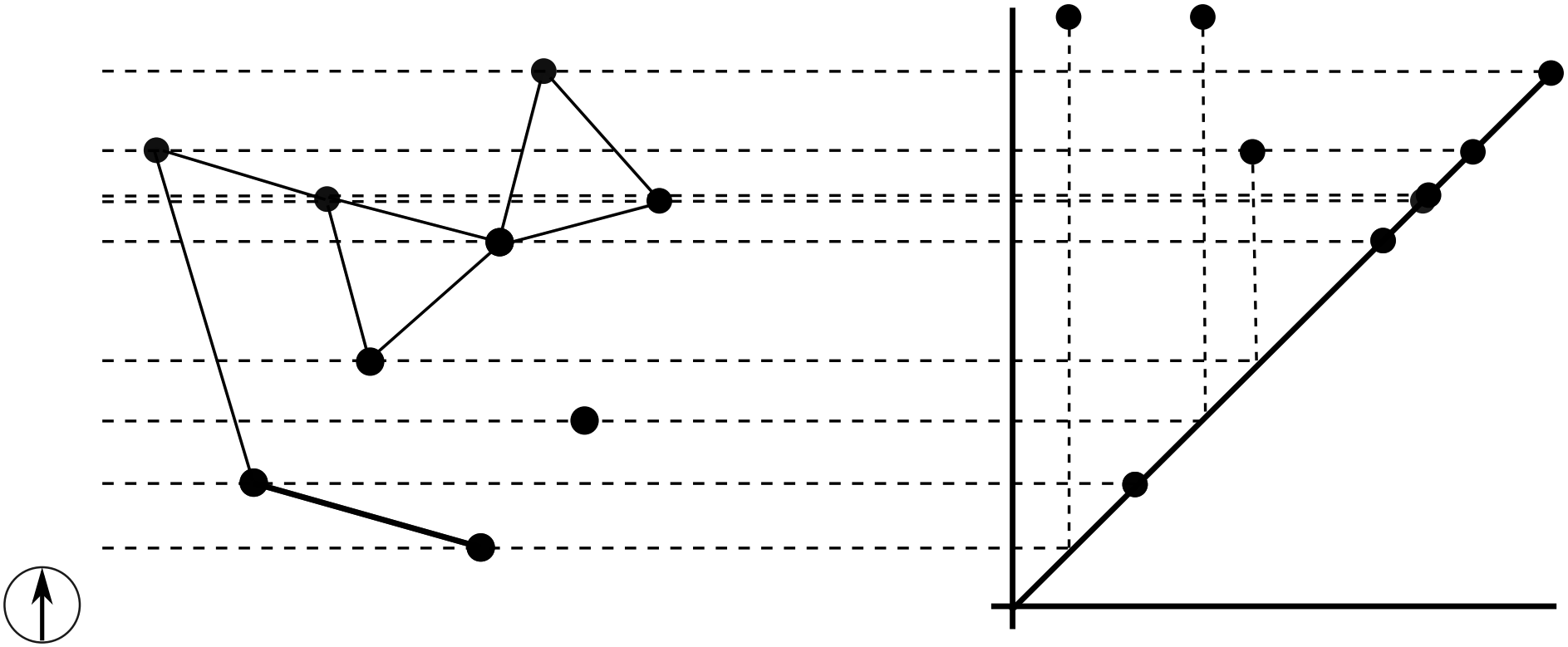

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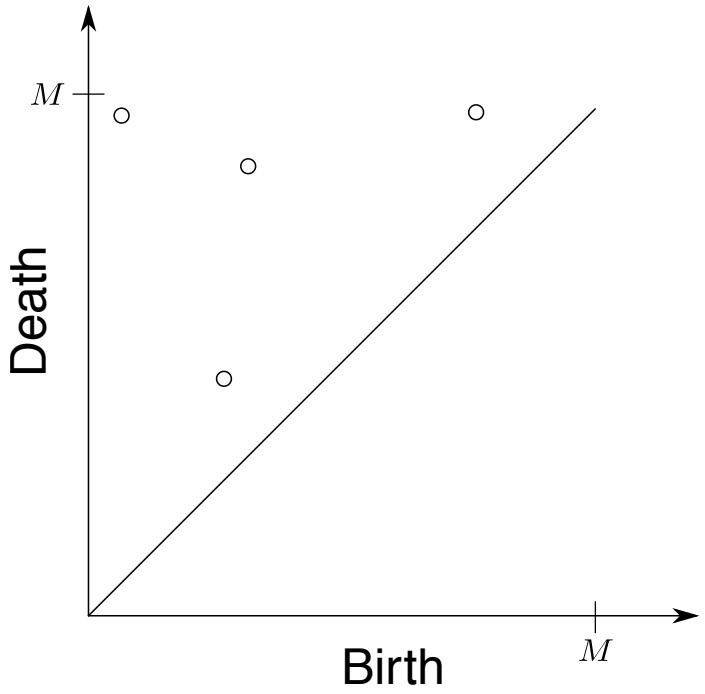
Comparing Two Persistence Diagrams

Bottleneck Distance



Bottleneck Distance: is the minimum largest distance between two matched points over all matchings between two diagrams P, Q (matchings with diagonal allowed), denoted $d_B(P, Q)$.

Comparing Two Persistence Diagrams

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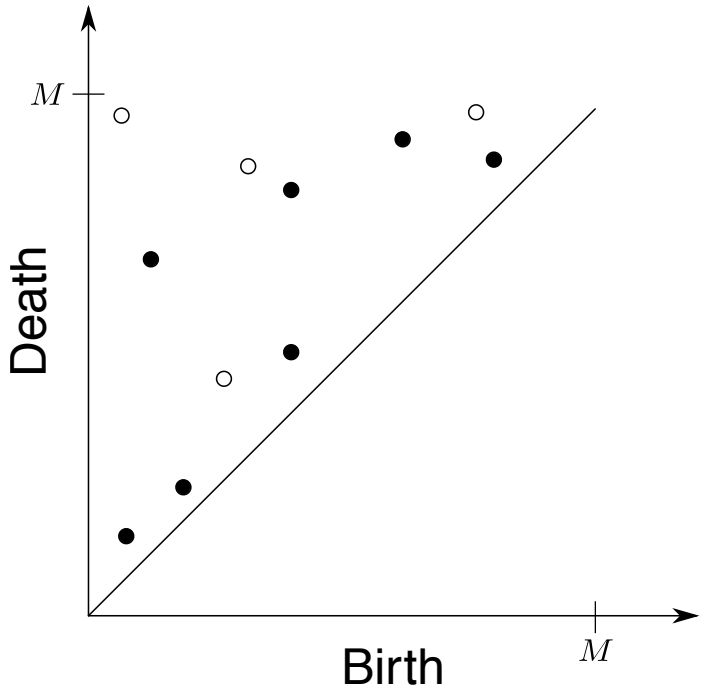

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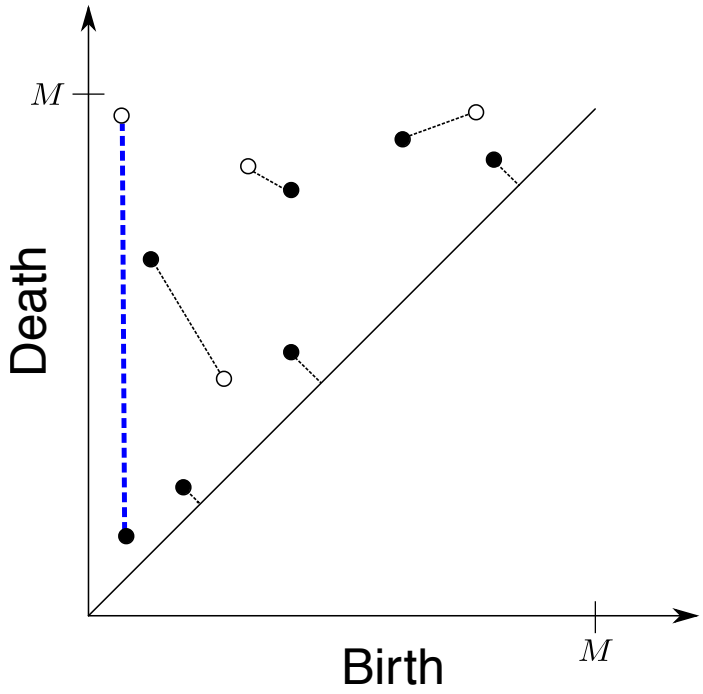

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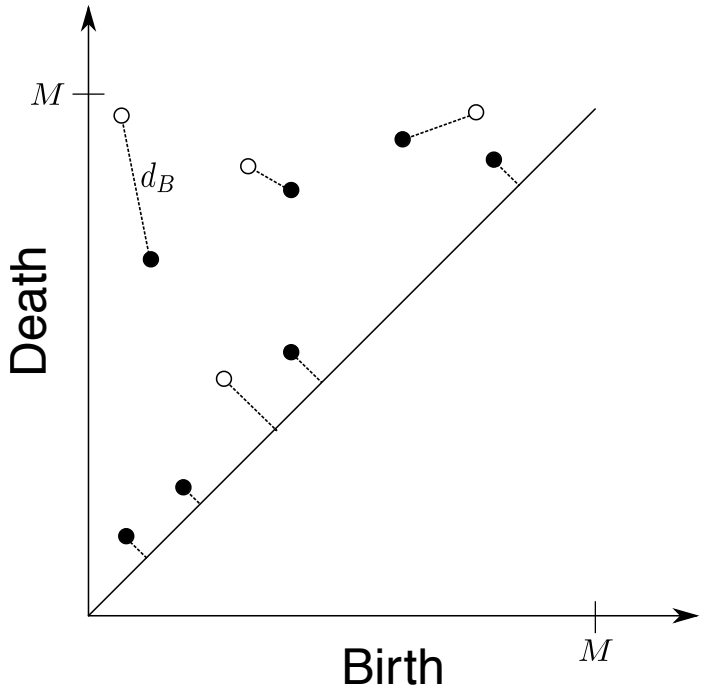

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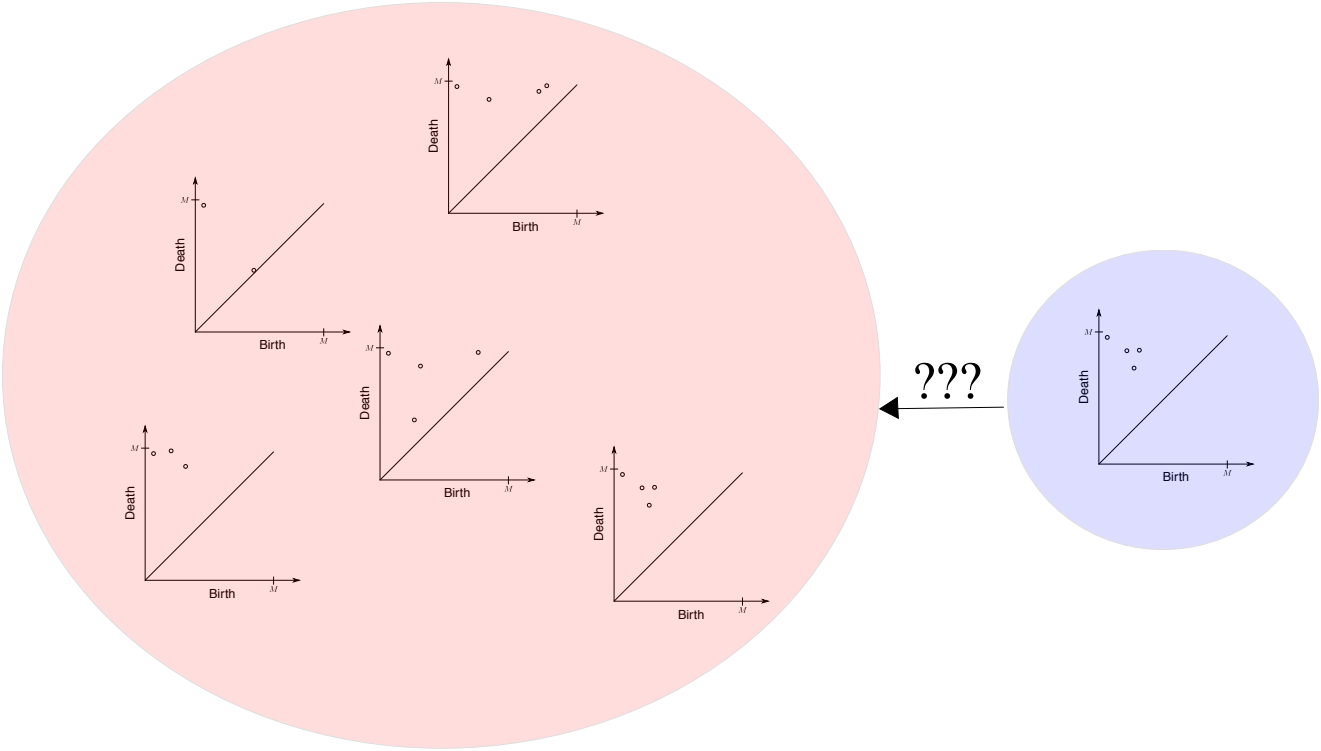
Querying Persistence Diagrams

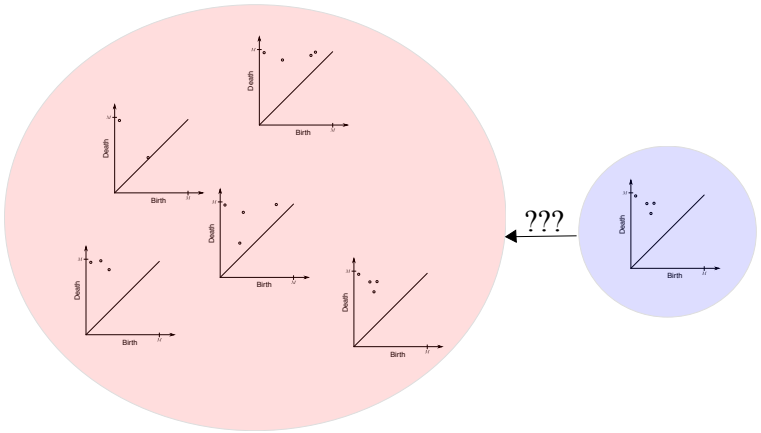
Querying for Nearest Neighbor of Persistence Diagram



Searching in the Space of Persistence Diagrams

Project Information

Brittany Terese Fasy, Xiaozhou He, Zhihui Liu, Samuel Micka, David L. Millman, Binhai Zhu, ”Approximate Nearest Neighbors in the Space of Persistence Diagrams”, (In Progress).



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