# Notes on Causality, Prediction and Search by Peter Spirtes

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## Notation:

### Graphs:

: undirected edge

: directed edge

Inducing path graph:

Graph: ordered pair where is a set of vertices and is a set of edges. The members of are pairs of vertices (an ordered pair in a directed graph and an unordered pair in an undirected graph). For example, the edge is represented by the ordered pair . We need to specify variables and **marks** at each end. For example, the left end of can be represented as ordered pair , while the right end can be represented as the ordered pair . The entire edge is a set of ordered pairs representing the endpoints . The edge is the same as

## Introductory Notes

# Bibliography

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Spirtes, P., Glymour, C., & Sheines, R. (1993). *Causation, Prediction and Search.* New York: Springer Verlag.

# Downloadable Links for the Bibliography

(Eells, 1991): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/eells_probabilistic_causality_1991.pdf)

(Reichenbach, 1956): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/the-direction-of-time-hans-reichenbach-ucal-press-1971.pdf)

(Spirtes, Glymour, & Sheines, 1993): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/CausationPredictionandSearch_Spirtes_CMU_2000.pdf)

(Otte, 1982): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/Probability_and_Causality_PhD_Thesis_Otte_1982.pdf)

(G.E. Hughes, 1996): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/ModelChecking/huges_cresswell_modal_logic.pdf)

(Salmon, Causality and Explanation, 1998): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/Causality_and_Explanation_Wesley_Salmon_1997.pdf)

(Salmon, Probabilistic Causality, 1980): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/Probabilistic_Causality_Salmon_1980.pdf)

(Good, 1961): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/CausalCalculus_part_I_and_II_Good_1960.pdf)

(Mackie, 1980): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/cement-of-the-universe-a-study-of-causation-JL-Mackie-1980.pdf)

(Lewis, Counterfactuals, 1973): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/books/Counterfactuals-lewis-1973.pdf)

(Lewis, Causation, 1974): [here](https://github.com/dimitarpg13/root_cause_analysis_and_model_checking/blob/main/literature/Lewis-Causation_1974.pdf)