

1. Record Nr.	UNINA9910819365603321
Autore	Lemeire Jan
Titolo	Learning causal models of multivariate systems : and the value of it for the performance modeling of computer programs // by Jan Lemeire
Pubbl/distr/stampa	Brussels, Belgium : , : Vrije Universiteit Brussel, , 2007 ©2007
Descrizione fisica	1 online resource (240 p.)
Disciplina	511.8
Soggetti	Algorithms Multivariate analysis - Computer programs
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Thesis submitted in fulfilment of the requirements for the award of the degree of Doctor in de ingenieurswetenschappen (Doctor in Engineering)."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Contents""; ""Introduction""; ""I Causal Inference""; ""Principles of Inductive Inference""; ""Classical Information Theory""; ""Maximum Entropy Principle""; ""Kernel Density Estimation""; ""Occam's Razor""; ""Kolmogorov Complexity""; ""Definition""; ""Minimum Description Length""; ""Kolmogorov Minimal Sufficient Statistic""; ""Regularities as Meaningful Information""; ""Typicality""; ""Sufficient Statistics""; ""Algorithmic Sufficient Statistics""; ""Conclusions of Chapter""; ""Graphical Causal Models""; ""Independencies""; ""Correlation""; ""Qualitative Property and Qualitative Reasoning""; ""The Occurrence of Independencies""; ""Graphoid Properties""; ""Markov networks""; ""Bayesian Networks""; ""Representation of Distributions""; ""Representation of Independencies""; ""Graphical Causal Models""; ""Defining Causality: The Shadow's Cause""; ""Interventions""; ""Causally Interpreted Bayesian Networks""; ""Invalidity of the Markov Network Representation""; ""Causal Structure Learning Algorithms""; ""The PC Algorithm""; ""Assumptions""; ""Complexity""; ""Summary of Chapter""; ""The Meaningful Information of Probability Distributions""; ""Minimal Description of Distributions""; ""Compression of Distributions""; ""Minimality of Causal Models""; ""Correspondence of Causal Component to Decomposition""; ""A Distributed d-separation

Algorithm"; ""Reductionism"; ""Validity of Causal Inference"";
""Faithfulness""; ""Summary of Chapter""; ""Information Equivalence"";
""Related Work""; ""Information equivalences""; ""Definition"";
""Equivalent Partition""; ""Assumptions""; ""Properties of Information
Equivalences""; ""Augmented Bayesian Network""
""The Complexity Criterion""""Complexity of Relations""; ""The Increase
of Complexity""; ""Faithfulness""; ""Conditional Independence and
Simplicity""; ""Deq-separation""; ""Faithfulness Revisited""; ""Constraint-
based Learning Algorithms""; ""Equivalence Detection""; ""Equivalence
selection""; ""Experiments""; ""Summary of Chapter""; ""II Performance
Modeling""; ""Performance Analysis of Parallel Processing""; ""Parallel
Performance Metrics""; ""Lost Cycle Approach""; ""Overhead Ratios"";
""Overhead Classification""; ""Granularity""; ""Parameter Dependence"";
""Tool""; ""EPPA""
""EPPA Measurement Overhead""""Related Performance Analysis Tools"";
""Summary of Chapter""; ""Qualitative Multivariate Analysis""; ""EPDA"";
""Visualization Facilities""; ""Statistical Technologies""; ""Outlier
Detection""; ""Probability Table Compression""; ""Sequential Experiment
Probing""; ""Loading Parallel Performance Data""; ""The Modeling
Process""; ""Causal Structure Learning""; ""Pearson Correlation
Coefficient""; ""Information-Theoretic Dependence""; ""Independence
Test Calibration""; ""Summary of Chapter""; ""Causal Inference for
Performance Analysis""; ""Utility""
""Support of the Modeling Process""
