

## Chapter 1. Description of stochastic events

- 1.1 Interval probabilities and means
- 1.2 Extension of primary means
- 1.3 Relations between interval models
- 1.4 Interval probability distributions
- 1.5 Models' representation
- 1.6 Conditional interval models
- 1.7 Conclusions

## Chapter 2. Combined analysis

- 2.1 Determinate transformations of outcomes
- 2.2 Random transformations
- 2.3 Fuzzy events and fuzzy probabilities
- 2.4 Combined interval models
- 2.5 Independence
- 2.6 Conclusions

## Chapter 3. Random variables, sequences, sums

- 3.1 Random variables, sequences
- 3.2 Convergences
- 3.3 Prelimit and limit problems
- 3.4 Limit models of general type sums
- 3.5 Conclusions

## Chapter 4. Stochastic process

- 4.1 Descriptions of stochastic processes
- 4.2 Correlation properties
- 4.3 Homogeneous and stationary processes
- 4.4 Linear transformations of a process
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## Chapter 5. Decision-making theory

- 5.1 Statistical models
- 5.2 Optimal rules
- 5.3 Sufficient reduction of observations
- 5.4 Reduction of observations and invariance
- 5.5 Determinate solutions and filtration
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## Chapter 6. Fuzzy evaluation

- 6.1 General questions
- 6.2 Confidence estimation given probability distributions of fluctuations
- 6.3 Estimate of regression parameters given energy and correlation data of fluctuations
- 6.4 Estimate of shift parameters by moments and harmonic means
- 6.5 Confidence estimation of scale parameter
- 6.6 Conclusions

## Chapter 7. Test of hypotheses

- 7.1 General statements
- 7.2 Correlation theory of hypotheses' test
- 7.3 Using confidence estimates for hypotheses' test
- 7.4 Special methods for rule synthesis
- 7.5 Test of hypotheses about the given parameter value
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- 8.3 Coherent synthesis of models and rules
- 8.4 Conclusions