

1. Record Nr.	UNINA9910461992603321
Autore	Kelkar Mohan
Titolo	Applied geostatistics for reservoir characterization [[electronic resource]] / Mohan Kelkar, Godofredo Perez ; book editor, Anil Chopra
Pubbl/distr/stampa	Richardson, Tex., : Society of Petroleum Engineers, 2002
ISBN	1-61399-222-X
Descrizione fisica	1 online resource (273 p.)
Altri autori (Persone)	PerezGodofredo ChopraAnil
Disciplina	622/.338/015118
Soggetti	Hydrocarbon reservoirs - Mathematical models Hydrocarbon reservoirs - Statistical methods Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	""Preface""; ""Acknowledgments""; ""Contents""; ""1. Introduction""; ""1.1 Introduction""; ""1.2 Reservoir Heterogeneity""; ""1.3 Reservoir Modeling in the Presence of Heterogeneities""; ""1.4 Use of Geostatistics in Reservoir Description""; ""1.5 Outline""; ""2. Principles of Statistics""; ""2.1 Introduction""; ""2.2 Descriptive Statistics""; ""2.3 Inferential Statistics""; ""3. Spatial Relationships: Estimation and Modeling""; ""3.1 Introduction""; ""3.2 Random-Function Model""; ""3.3 Spatial Relationship""; ""3.4 Estimation of Variogram""; ""3.5 Modeling Variograms"" ""3.6 Cross Variograms""""3.7 Alternative Methods of Spatial Relationships""; ""4. Conventional Estimation Techniques""; ""4.1 Preliminary Considerations""; ""4.2 Linear Kriging Procedures""; ""4.3 Nonlinear Kriging Techniques""; ""4.4 Estimation of Uncertainty""; ""5. Conditional Simulation Techniques""; ""5.1 Definition""; ""5.2 Distinguishing Features""; ""5.3 Simulation Methods""; ""6. Grid-Based Simulation Methods""; ""6.1 Sequential Conditional Simulation Methods""; ""6.2 Probability Field Simulation""; ""6.3 Simulated Annealing""; ""6.4 Simulation Process"" ""7. Object-Based Simulation Techniques""""7.1 Marked Point Process Technique""; ""7.2 Criteria for Choosing Object Modeling""; ""7.3 Hybrid Conditional Simulation Approaches""; ""7.4 Field Case Studies""; ""7.5

Other Applications of Object Modeling"; "8. Scaleup"; "8.1 Scaleup of Static Properties"; "8.2 Scaleup for Dynamic Propertiesa€?Single-Phase Flow"; "8.3 Scaleup for Dynamic Propertiesa€?Multiphase Flow"; "9. Looking Ahead"; "9.1 Integration of Data"; "9.2 Inverse Problem"; "Appendix Aa€?Field Data"; "A.1 Wells"; "A.2 Reservoir Top"; "A.3 Flow Unit Thickness"  
"A.4 Porosity""A.5 Permeability and Porosity Core Data"; "A.6 Distribution Disk Computer Files"; "Appendix Ba€?Derivations for Principles of Statistics"; "B.1 Expected Value"; "B.2 Important Distribution Functions"; "B.3 Linear Regression Using MVUE Technique"; "B.4 Generalized Linear Regression"; "Appendix Ca€?Derivations for Special Relationships"; "C.1 Relationships Between Variograms and Covariance"; "C.2 Indicator Variable"; "C.3 Cross Relationships"; "Appendix Da€?Derivations of Conventional Estimation Methods"; "D.1 Simple Kriging"  
"D.2 Simple Block Kriging""D.3 Ordinary Kriging"; "D.4 Cokriging"; "D.5 Universal Kriging"; "Appendix Ea€?Mathematical Details for Simulated Annealing"; "E.1 Estimation of Initial Control Parameter"; "E.2 Estimation of Maximum Number of Swaps per Step"; "E.3 Equations To Update a Variogram When Two Values are Interchanged"; "Appendix Fa€?Mathematical Details for Upscaling"; "F.1 Permeability Upscaling"; "F.2 Upscaling of Relative Permeabilities"; "Author Index"; "Subject Index"

---