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Altri autori (Persone)	IdierJerome
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Bayesian Approach to Inverse Problems; Table of Contents; Introduction; Part I. Fundamental Problems and Tools; Chapter 1. Inverse Problems, Ill-posed Problems; 1.1. Introduction; 1.2. Basic example; 1.3. Ill-posed problem; 1.3.1. Case of discrete data; 1.3.2. Continuous case; 1.4. Generalized inversion; 1.4.1. Pseudo-solutions; 1.4.2. Generalized solutions; 1.4.3. Example; 1.5. Discretization and conditioning; 1.6. Conclusion; 1.7. Bibliography; Chapter 2. Main Approaches to the Regularization of Ill-posed Problems; 2.1. Regularization; 2.1.1. Dimensionality control 2.1.1.1. Truncated singular value decomposition2.1.1.2. Change of discretization; 2.1.1.3. Iterative methods; 2.1.2. Minimization of a composite criterion; 2.1.2.1. Euclidian distances; 2.1.2.2. Roughness measures; 2.1.2.3. Non-quadratic penalization; 2.1.2.4. Kullback pseudo-distance; 2.2. Criterion descent methods; 2.2.1. Criterion minimization for inversion; 2.2.2. The quadratic case; 2.2.2.1. Non-iterative techniques; 2.2.2.2. Iterative techniques; 2.2.3. The convex case; 2.2.4. General case; 2.3. Choice of regularization coefficient;

2.3.1. Residual error energy control
2.3.2. "L-curve" method2.3.3. Cross-validation; 2.4. Bibliography; Chapter 3. Inversion within the Probabilistic Framework; 3.1. Inversion and inference; 3.2. Statistical inference; 3.2.1. Noise law and direct distribution for data; 3.2.2. Maximum likelihood estimation; 3.3. Bayesian approach to inversion; 3.4. Links with deterministic methods; 3.5. Choice of hyperparameters; 3.6. A priori model; 3.7. Choice of criteria; 3.8. The linear, Gaussian case; 3.8.1. Statistical properties of the solution; 3.8.2. Calculation of marginal likelihood; 3.8.3. Wiener filtering; 3.9. Bibliography
Part II. DeconvolutionChapter 4. Inverse Filtering and Other Linear Methods; 4.1. Introduction; 4.2. Continuous-time deconvolution; 4.2.1. Inverse filtering; 4.2.2. Wiener filtering; 4.3. Discretization of the problem; 4.3.1. Choice of a quadrature method; 4.3.2. Structure of observation matrix H; 4.3.3. Usual boundary conditions; 4.3.4. Problem conditioning; 4.3.4.1. Case of the circulant matrix; 4.3.4.2. Case of the Toeplitz matrix; 4.3.4.3. Opposition between resolution and conditioning; 4.3.5. Generalized inversion; 4.4. Batch deconvolution; 4.4.1. Preliminary choices
4.4.2. Matrix form of the estimate4.4.3. Hunt's method (periodic boundary hypothesis); 4.4.4. Exact inversion methods in the stationary case; 4.4.5. Case of non-stationary signals; 4.4.6. Results and discussion on examples; 4.4.6.1. Compromise between bias and variance in 1D deconvolution; 4.4.6.2. Results for 2D processing; 4.5. Recursive deconvolution; 4.5.1. Kalman filtering; 4.5.2. Degenerate state model and recursive least squares; 4.5.3. Autoregressive state model; 4.5.3.1. Initialization; 4.5.3.2. Criterion minimized by Kalman smoother; 4.5.3.3. Example of result
4.5.4. Fast Kalman filtering

Sommario/riassunto

Many scientific, medical or engineering problems raise the issue of recovering some physical quantities from indirect measurements; for instance, detecting or quantifying flaws or cracks within a material from acoustic or electromagnetic measurements at its surface is an essential problem of non-destructive evaluation. The concept of inverse problems precisely originates from the idea of inverting the laws of physics to recover a quantity of interest from measurable data. Unfortunately, most inverse problems are ill-posed, which means that precise and stable solutions are not easy to devise

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Autore	Gulati Ashok
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Nota di contenuto	Chapter 1: Introduction -- Chapter 2: Evaluating Agricultural Value Chains on CISS-F Framework -- Chapter 3: Decoding Value Chains of Tomatoes, Onions and Potatoes (TOP) -- Chapter 4: Towards an Efficient Banana and Mango Value Chains in India -- Chapter 5: Analysis of Grapes and Pomegranates Value Chain -- Chapter 6: Towards Creation of an Efficient Dairy Value Chain -- Chapter 7: Poultry Value Chain in India -- Chapter 8: Pulses in India: A Value Chain Analysis -- Chapter 9: Developing Agricultural Value Chains in India- the Way Forward.
Sommario/riassunto	This open access book provides a clear holistic conceptual framework of CISS-F (competitiveness, inclusiveness, sustainability, scalability and access to finance) to analyse the efficiency of value chains of high value agricultural commodities in India. It is based on the understanding that agriculture is an integrated system that connects farming with logistics, processing and marketing. Farmer’s welfare being central to any agricultural policy makes it very pertinent to study how a value chain works and can be strengthened further to realize this policy goal. This

book adds value to the existing research by studying the value chains end-to-end across a wide spectrum of agricultural commodities with the holistic lens of CISS-F. It is not enough that a value chain is competitive but not inclusive or it is competitive and inclusive but not sustainable. The issue of scalability is very critical to achieve macro gains in terms of greater farmer outreach and sectoral growth. The research undertaken here brings out some very useful insights for policymaking in terms of what needs to be done better to steer the agricultural value chains towards being more competitive, inclusive, sustainable and scalable. The value chain specific research findings help draw very nuanced policy recommendations as well as present a big picture of the future direction of policy making in agriculture. .