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Titolo	Dynamic Econometrics : Models and Applications / / by Francis J. Bismans, Olivier Damette
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Palgrave Macmillan, , 2025
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Descrizione fisica	1 online resource (560 pages)
Altri autori (Persone)	DametteOlivier
Disciplina	330.015195
Soggetti	Econometrics Social sciences - Mathematics Regression analysis Quantitative Economics Mathematics in Business, Economics and Finance Linear Models and Regression
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. General Introduction -- 2. Dynamics in Econometrics -- 3. Estimating the Model -- 4. Testing the Model -- 5. Non-Stationarity and Cointegration -- 6. Specifying the ARDL Model -- 7. Vector Autoregressions -- 8. Panel Data Models -- 9. Non-Stationary Panels -- 10. The Binary Qualitative Model.
Sommario/riassunto	<p>"This book is a bold and confident advance in dynamic econometric theory and practice." I. Litvine, Professor in Statistics, Nelson Mandela University, Port Elizabeth, South Africa</p> <p>"This book is an outstanding contribution to econometrics, coming at a crucial time to fill a significant gap in the field." Maria do Rosário Grossinho, Professor of Analysis and Mathematical Finance ISEG - University of Lisbon Portugal</p> <p>This textbook for advanced econometrics students introduces key concepts of dynamic non-stationary modelling. It discusses all the classic topics in time series analysis and linear models containing multiple equations, as well as covering panel data models, and non-linear models of qualitative variables. The book offers a general</p>

introduction to dynamic econometrics and covers topics including non-stationary stochastic processes, unit root tests, Monte Carlo simulations, heteroskedasticity, autocorrelation, cointegration and error correction mechanism, models specification, and vector autoregressions. Going beyond advanced dynamic analysis, the book also meticulously analyses the classical linear regression model (CLRM) and introduces students to estimation and testing methods for the more advanced auto-regressive distributed lag (ARDL) model. The book incorporates worked examples, algebraic explanations and learning exercises throughout. It will be a valuable resource for graduate and postgraduate students in econometrics and quantitative finance as well as academic researchers in this area. Francis Bismans is Professor in Economics and Statistics, University of Lorraine, France. Olivier Damette is Professor in Economics, University of Lorraine, France.

2. Record Nr.	UNINA9911018961003321
Titolo	Vibrations of continuous mechanical systems // Peter Hagedorn, Anirvan DasGupta
Pubbl/distr/stampa	Chichester, West Sussex, : John Wiley & Sons Ltd., 2007
ISBN	9786611135331 9781281135339 128113533X 9780470518434 047051843X 9780470518427 0470518421
Descrizione fisica	1 online resource (398 p.)
Altri autori (Persone)	HagedornPeter DasGuptaAnirvan
Disciplina	620.3
Soggetti	Vibration
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

Vibrations and Waves in Continuous Mechanical Systems; Contents; Preface; 1 Vibrations of strings and bars; 1.1 Dynamics of strings and bars: the Newtonian formulation; 1.1.1 Transverse dynamics of strings; 1.1.2 Longitudinal dynamics of bars; 1.1.3 Torsional dynamics of bars; 1.2 Dynamics of strings and bars: the variational formulation; 1.2.1 Transverse dynamics of strings; 1.2.2 Longitudinal dynamics of bars; 1.2.3 Torsional dynamics of bars; 1.3 Free vibration problem: Bernoulli's solution; 1.4 Modal analysis; 1.4.1 The eigenvalue problem; 1.4.2 Orthogonality of eigenfunctions; 1.4.3 The expansion theorem; 1.4.4 Systems with discrete elements; 1.5 The initial value problem: solution using Laplace transform; 1.6 Forced vibration analysis; 1.6.1 Harmonic forcing; 1.6.2 General forcing; 1.7 Approximate methods for continuous systems; 1.7.1 Rayleigh method; 1.7.2 Rayleigh-Ritz method; 1.7.3 Ritz method; 1.7.4 Galerkin method; 1.8 Continuous systems with damping; 1.8.1 Systems with distributed damping; 1.8.2 Systems with discrete damping; 1.9 Non-homogeneous boundary conditions; 1.10 Dynamics of axially translating strings; 1.10.1 Equation of motion; 1.10.2 Modal analysis and discretization; 1.10.3 Interaction with discrete elements; Exercises; References; 2 One-dimensional wave equation: d'Alembert's solution; 2.1 D'Alembert's solution of the wave equation; 2.1.1 The initial value problem; 2.1.2 The initial value problem: solution using Fourier transform; 2.2 Harmonic waves and wave impedance; 2.3 Energetics of wave motion; 2.4 Scattering of waves; 2.4.1 Reflection at a boundary; 2.4.2 Scattering at a finite impedance; 2.5 Applications of the wave solution; 2.5.1 Impulsive start of a bar; 2.5.2 Step-forcing of a bar with boundary damping; 2.5.3 Axial collision of bars; 2.5.4 String on a compliant foundation; 2.5.5 Axially translating string; Exercises; References; 3 Vibrations of beams; 3.1 Equation of motion; 3.1.1 The Newtonian formulation; 3.1.2 The variational formulation; 3.1.3 Various boundary conditions for a beam; 3.1.4 Taut string and tensioned beam; 3.2 Free vibration problem; 3.2.1 Modal analysis; 3.2.2 The initial value problem; 3.3 Forced vibration analysis; 3.3.1 Eigenfunction expansion method; 3.3.2 Approximate methods; 3.4 Non-homogeneous boundary conditions; 3.5 Dispersion relation and flexural waves in a uniform beam; 3.5.1 Energy transport; 3.5.2 Scattering of flexural waves; 3.6 The Timoshenko beam; 3.6.1 Equations of motion; 3.6.2 Harmonic waves and dispersion relation; 3.7 Damped vibration of beams; 3.8 Special problems in vibrations of beams; 3.8.1 Influence of axial force on dynamic stability; 3.8.2 Beam with eccentric mass distribution; 3.8.3 Problems involving the motion of material points of a vibrating beam; 3.8.4 Dynamics of rotating shafts; 3.8.5 Dynamics of axially translating beams; 3.8.6 Dynamics of fluid-conveying pipes; Exercises; References

Sommario/riassunto

The subject of vibrations is of fundamental importance in engineering and technology. Discrete modelling is sufficient to understand the dynamics of many vibrating systems; however a large number of vibration phenomena are far more easily understood when modelled as continuous systems. The theory of vibrations in continuous systems is crucial to the understanding of engineering problems in areas as diverse as automotive brakes, overhead transmission lines, liquid filled tanks, ultrasonic testing or room acoustics. Starting from an elementary level, Vibrations and Waves in Continuous Me