Record Nr. UNINA9910254172403321 Cyclostationarity: Theory and Methods III: Contributions to the 9th **Titolo** Workshop on Cyclostationary Systems and Their Applications, Grodek, Poland, 2016 / / edited by Fakher Chaari, Jacek Leskow, Antonio Napolitano, Radoslaw Zimroz, Agnieszka Wylomanska Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 Edizione [1st ed. 2017.] 1 online resource (VIII, 257 p. 115 illus., 97 illus. in color.) Descrizione fisica Applied Condition Monitoring, , 2363-698X;; 6 Collana Disciplina 621.8 Soggetti Machinery Vibration Dynamical systems **Dynamics** Signal processing Image processing Speech processing systems Mathematical models Quality control Reliability Industrial safety Machinery and Machine Elements Vibration, Dynamical Systems, Control Signal, Image and Speech Processing Mathematical Modeling and Industrial Mathematics Quality Control, Reliability, Safety and Risk Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto From the content: Weak Dependence: An Introduction Through Asymmetric ARCH Models -- Subsampling for NonStationary Time Series With Long Memory and Heavy Tails Using Weak Dependence

Condition -- ChangePoint Problem in the Fraction of Time Approach.

Sommario/riassunto

This book gathers contributions presented at the 9th Workshop on Cyclostationary Systems and Their Applications, held in Gródek nad Dunajcem, Poland in February 2016. It includes both theory-oriented and practice-oriented chapters. The former focus on heavy-tailed time series and processes, PAR models, rational spectra for PARMA processes, covariance invariant analysis, change point problems, and subsampling for time series, as well as the fraction-of-time approach, GARMA models and weak dependence. In turn, the latter report on case studies of various mechanical systems, and on stochastic and statistical methods, especially in the context of damage detection. The book provides students, researchers and professionals with a timely guide to cyclostationary systems, nonstationary processes and relevant engineering applications.