STOCHASTICS AND QUALITY CONTROL

EDITOR-IN-CHIEF
George P. Yanev, Edinburg

FOUNDING EDITOR
Elart von Collani

ASSOCIATE EDITORS
Justin R. Chimka, Fayetteville
Boyan Dimitrov, Flint
Miguel González, Badajoz
Raj Govindaraj, Palmerston North
Olgierd Hryniewicz, Warszawa
Vladimir K. Kaishev, London
Magdi Moustafa, Cairo
S. P. Mukherjee, Calcutta
Ken Nishina, Nagoya
Abdur Rahim, Fredericton
Erwin Saniga, Newark

DE GRUYTER

STOCHASTICS AND QUALITY CONTROL is devoted to all fields related to reliability and quality control. It primarily publishes research articles, but survey articles on a topical area inside the scope are considered, too.
The journal pays special attention to the interdisciplinary character of the topic. Not only mathematicians, but also scientists, economists as well as scholars from other disciplines contribute papers. The methods and results published thus are of interest to various applications in real life.

Topics of Interest: Applied Stochastic Processes · Branching Processes: Theory and Applications · Reliability · Ordered Data Analysis · Statistical Methodology · Business Management · Economy and Finance

ISSN 2367-2390 · e-ISSN 2367-2404

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/eqc.

ABSTRACTED/INDEXED IN Baidu Scholar · Cabells Journalytics · CNKI Scholar (China National Knowledge Infrastructure) · CNPIEC: cnpLINKer · Dimensions · EBSCO (relevant databases) · EBSCO Discovery Service · EconBiz · EconLit · ERIH PLUS (European Reference Index for the Humanities and Social Sciences) · Genamics JournalSeek · Google Scholar · Japan Science and Technology Agency (JST) · J-Gate · JournalTOCs · KESLI-NDSL (Korean National Discovery for Science Leaders) · Mathematical Reviews (MathSciNet) · Microsoft Academic · MyScienceWork · Naver Academic · Naviga (Softweco) · Primo Central (ExLibris) · ProQuest (relevant databases) · Publons · QOAM (Quality Open Access Market) · ReadCube · RePEc (Research Papers in Economics): IDEAS, EconPapers · SCImago (SJR) · SCOPUS · Semantic Scholar · Sherpa/RoMEO · Summon (ProQuest) · TDNet · TEMA Technik und Management · Ulrich's Periodicals Directory/ulrichsweb · WanFang Data · WorldCat (OCLC) · Yewno Discover · zbMATH Open.

RESPONSIBLE EDITOR George P. Yanev, School of Mathematical and Statistical Sciences, The University of Texas Rio Grande Valley, 1201 West University Drive, Edinburg, Texas 78539-2999, USA.
Email: george.yanev@utrgv.edu

PUBLISHER Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin, Germany

JOURNAL COORDINATOR Natalia Białka, email: natalia.bialka@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Markus Kügel, De Gruyter, Rosenheimer Str. 143, 81671 München, Germany.
Tel.: +49 (0)89 76 902-424
Email: anzeigen@degruyter.com

© 2022 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING WisSat Publishing + Consulting GmbH, Fürstenwalde

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim

Contents

Manuel Cabral Morais, Philipp Wittenberg, Camila Jeppesen Cruz
The *np*-Chart with 3-σ Limits and the ARL-Unbiased *np*-Chart Revisited —— 107

Makram Krit
General Independent Competing Risks for Maintenance Analysis —— 117

Shiji Kavungal, Rahul Thekkedath
On Normal-Laplace Stochastic Volatility Model —— 127

Ali Salmasnia, Samrad Jafarian-Namin, Behnam Abdzadeh
Robust Optimization of an Imperfect Process when the Mean and Variance are Jointly Monitored under Dependent Multiple Assignable Causes —— 137

Mahendra Saha, Sanku Dey
Estimation and Confidence Intervals of Modified Process Capability Index Using Robust Measure of Variability —— 153

N. Unnikrishnan Nair, B. Vineshkumar
Cumulative Entropy and Income Analysis —— 165