#### CALCUTTA STATISTICAL ASSOCIATION

#### BULLETIN

Vol. 65 (SPECIAL VOLUME), 2013, Nos. 257-260

# PROCEEDINGS OF THE EIGHTH INTERNATIONAL TRIENNIAL CALCUTTA SYMPOSIUM ON PROBABILITY AND STATISTICS December 27-30, 2012

# CALCUTTA STATISTICAL ASSOCIATION

#### BULLETIN

Vol. 65 (SPECIAL VOLUME), 2013, Nos. 257-260

PROCEEDINGS
OF THE
EIGHTH INTERNATIONAL TRIENNIAL
CALCUTTA SYMPOSIUM
ON
PROBABILITY AND STATISTICS
December 27-30, 2012

Editors
Asis Kumar Chattopadhyay and Arindam Sengupta

#### PREFACE

The Eighth International Triennial Calcutta Symposium on Probability and Statistics was jointly organized by the Calcutta Statistical Association and the Department of Statistics, Calcutta University during December 27-30, 2012. About 123 distinguished speakers from India and abroad presented research findings in six special lecture sessions and ten technical sessions; about 20 posters were also presented in addition. The present volume includes fourteen selected presentations through a peer reviewing process. Calcutta Statistical Association has kindly decided to publish this proceedings volume as special volume of Calcutta Statistical Association Bulletin.

We are particularly happy to include the paper presented as the key note address of the Symposium by Professor Peter Mueller, University of Texas at Austin, USA, and the papers presented in the Raj Chandra Bose Memorial Session by Professors Sumo Puntanen, University of Tampere, Finland and Kashinath Chatterjee, Visva-Bharati, India.

The list of papers included here cover various core areas of the discipline like Design of Experiments, Statistical Inference, Probability theory as well as some application-oriented areas like Biostatistics and Astrostatistics. We are grateful to all the referees (list appended) and authors for their kind cooperation in order to publish this volume on time.

We are thankful about the untiring efforts of the members of the organizing committee that made the entire process a grand success. Finally, special mention is due to Mr Aparesh Chatterjee for preparing the typescript of the present volume with great care.

Asis Kumar Chattopadhyay and Arindam Sengupta Department of Statistics, University of Calcutta

## CALCUTTA

## STATISTICAL ASSOCIATION

#### BULLETIN

Vol. 65 (Special 8th Triennial Proceedings Volume) 2013, Nos. 257-260

CONTENTS	Pages
BAYESIAN GRAPHICAL MODELS FOR EPIGENOMIC HETEROGENEITY - Peter Müller, Riten Mitra and Yuan Ji	1
DESIGNS FOR SEARCHING TWO TWO-FACTOR AND ONE THREE-FACTOR INTERACTION EFFECT UNDER THE TREE STRUCTURE - Hong Qin, Angshuman Sarkar and Kashinath Chatterjee	13
A REVIEW OF CONDITIONS UNDER WHICH BLUES AND/OR BLUPS IN ONE LINEAR MIXED MODEL ARE ALSO BLUES AND/OR BLUPS IN ANOTHER - Stephen J. Haslett and Simo Puntanen	25
A UNIFIED APPROACH TO FACTORIAL DESIGNS WITH RANDOMIZATION RESTRICTIONS - Pritam Ranjan and Neil Spencer	43
GENERAL EFFICIENCY BALANCED (GEB) BLOCK DESIGNS WITH CORRELATED OBSERVATIONS FOR EVEN NUMBER OF TREATMENTS - A. Majumder, S. G. Patil and G. R. Manjunatha	63

ON NONPARAMETRIC ESTIMATION OF THE DENSITY OF A NON-NEGATIVE FUNCTION OF OBSERVATIONS - Yogendra P. Chaubey and Pranab K. Sen	75
ON SEQUENTIAL POINT ESTIMATION IN A UNIFORM DISTRIBUTION WITH ADJUSTED NON-SUFFICIENT ESTIMATORS: A COMPARATIVE STUDY AND REAL DATA ILLUSTRATION - Debanjan Bhattacharjee and Nitis Mukhopadhyay	103
MULTIPLE POINT HYPOTHESIS TEST PROBLEMS AND EFFECTIVE NUMBERS OF TESTS FOR CONTROL OF THE FAMILY-WISE ERROR RATE - Thorsten Dickhaus and Jens Stange	123
BAN ESTIMATES OF CLASS BOUNDARIES UNDER LIKERT-TYPE SCALING - Tuhinsubhra Bhattacharya and Arindam Sengupta	145
COMPARISON AMONG CLUSTERING AND CLASSIFI- CATION TECHNIQUES ON THE BASIS OF GALAXY DATA - Tuli De, Tanuka Chattopadhyay and Asis Kumar Chattopadhyay	155
STABILITY OF THE CHARACTERIZATION RESULTS IN TERMS OF HAZARD AND REVERSE HAZARD RATES UNDER MATUSITA DISTANCE - Dilip Roy	191
ON GENERALIZED QUALITY CAPABILITY INDEX - Sudhansu S. Maiti and Mahendra Saha	201
THE ROLE OF GENOTYPE AND PHENOTYPE BASED RISK FACTORS IN PATIENTS SUFFERING FROM ACUTE CORONARY SYNDROME - Puspita Das Roy, Cynthia Basu, Sonali Das, Anjan Das Gupta and Bhaswati Ganguli	219
TIME SERIES MODELS USING GEOMETRIC STABLE DISTRIBUTIONS - Kuttykrishnan A. P.	229
Author Index	241

.