Research outputs:

Application of data clustering to railway delay pattern recognition
Research output: Research - peer-review » Journal article – Annual report year: 2018

Assessing spatial correlations of sea surges around Copenhagen
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2018

Parisian types of ruin probabilities for a class of dependent risk-reserve processes
Research output: Research - peer-review » Journal article – Annual report year: 2018

Passenger arrival and waiting time distributions dependent on train service frequency and station characteristics: A smart card data analysis
Research output: Research - peer-review » Journal article – Annual report year: 2018

Staff optimization for time-dependent acute patient flow
Research output: Research - peer-review » Journal article – Annual report year: 2018

A probabilistic approach to urban flooding from sea surges in Copenhagen
Research output: Research - peer-review » Article in proceedings – Annual report year: 2017

A Simulation-based Markov Decision Process for the Scheduling of Operating Theatres
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2017

Matrix-Exponential Distributions in Applied Probability
Research output: Research - peer-review » Book – Annual report year: 2017

Modelling Dietary Exposure to Chemical Components in Heat-Processed Meats
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2017

Optimization of hospital ward resources with patient relocation using Markov chain modeling
Research output: Research - peer-review » Journal article – Annual report year: 2017
Causal Analysis of Railway Running Delays
Research output: Research - peer-review › Paper – Annual report year: 2016

On the use of functional calculus for phase-type and related distributions
Research output: Research - peer-review › Journal article – Annual report year: 2015

Probabilistic modelling of sea surges in coastal urban areas
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2016

Calculation of ruin probabilities for a dense class of heavy tailed distributions
Research output: Research - peer-review › Journal article – Annual report year: 2014

Optimization of Overflow Policies in Call Centers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Maximizing entropy over Markov processes
Research output: Research - peer-review › Conference article – Annual report year: 2014

Multivariate phase type distributions - Applications and parameter estimation
Research output: Research › Ph.D. thesis – Annual report year: 2014

Obituary: Marcel F. Neuts 1935-2014
Research output: Communication › Journal article – Annual report year: 2014

On the use of functional calculus for phase-type and related distributions
Research output: Research › Report – Annual report year: 2014

Estimating passenger numbers in trains using existing weighing capabilities
Research output: Research - peer-review › Journal article – Annual report year: 2013

Matrix Analytic Methods in Applied Probability with a View towards Engineering Applications
Research output: Research › Doctoral thesis – Annual report year: 2013

Maximizing Entropy over Markov Processes
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013
Maximum likelihood estimation of phase-type distributions
Research output: Research › Ph.D. thesis – Annual report year: 2010

Moment Distributions of Phase Type
Bladt, M. & Nielsen, B. F. 2011 In : Stochastic Models. 27, 4, p. 651
Research output: Research - peer-review › Journal article – Annual report year: 2011

Queues with waiting time dependent service
Bekker, R., Koole, G. M., Nielsen, B. F. & Nielsen, T. B. 2011 In : Queueing Systems. 68, 1, p. 61-78
Research output: Research - peer-review › Journal article – Annual report year: 2011

Call Center Capacity Planning
Research output: Research › Ph.D. thesis – Annual report year: 2010

Effective population management practices in diabetes care - an observational study
Research output: Research - peer-review › Journal article – Annual report year: 2010

Model Checking Multivariate State Rewards
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Multivariate Matrix-Exponential Distributions
Research output: Research - peer-review › Journal article – Annual report year: 2010

On the Construction of Bivariate Exponential Distributions with an Arbitrary Correlation Coefficient
Research output: Research - peer-review › Journal article – Annual report year: 2010

Quasi-Birth-and-Death Processes with Rational Arrival Process Components
Research output: Research - peer-review › Journal article – Annual report year: 2010

Moment Distributions of Phase Type
Research output: Research › Report – Annual report year: 2009

Multivariate matrix-exponential distributions
Research output: Research › Report – Annual report year: 2008

Multivariate matrix-exponential distributions
Research output: Research › Article in proceedings – Annual report year: 2008
On the construction of bivariate exponential distributions with an arbitrary correlation coefficient
Research output: Research › Report – Annual report year: 2008

Queues with waiting time dependent service
Research output: Research - peer-review › Journal article – Annual report year: 2008

Markovian Building Blocks for Individual-Based Modelling
Research output: Research › Ph.D. thesis – Annual report year: 2007

Higher order moments and conditional asymptotics in the Batch Markovian Arrival Process
Research output: Research - peer-review › Journal article – Annual report year: 2007

Quasi-Birth-and-Death Processes with Rational Arrival Process Components
Research output: Research › Report – Annual report year: 2007

Estimation of Interrupted Poisson Process Parameters from Counts
Research output: Research › Report – Annual report year: 2005

Statistical Analysis of Hypercalcaemia Data related to Transferability
Frølich, A. & Nielsen, B. F. 2005
Research output: Research › peer-review › Report – Annual report year: 2005

On the Time Reversal of Markovian Arrival Processes
Research output: Research - peer-review › Journal article – Annual report year: 2004

Phase-Type Models of Channel-Holding Times in Cellular Communication Systems
Research output: Research - peer-review › Journal article – Annual report year: 2004

Vertical migration and dispersion of sprat (Sprattus sprattus) and herring (Clupea harengus) schools at dusk in the Baltic Sea
Research output: Research - peer-review › Journal article – Annual report year: 2003

Decay Rates of Discrete Phase-Type Distributions with Infinitely-many Phases
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Modelling the dispersive migration of sprat Sprattus sprattus
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002
On the Use of Second-Order Descriptors To Predict Queueing Behavior of MAPs
Research output: Research - peer-review › Journal article – Annual report year: 2002

Distribution of Channel Holding Times in Cellular Communication Systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Estimation of IPP parameters based on counts
Nielsen, B. F. 2001
Research output: Research › Report – Annual report year: 2001

Lower order moments of inter-transition times in the stationary QBD process
Research output: Research - peer-review › Journal article – Annual report year: 2000

Modelling long-range dependent and heavy-tailed phenomena by matrix-analytic methods
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

On the statistical implications of certain Random permutations in Markovian Arrival Processes (MAPs) and second order self-similar processes
Research output: Research - peer-review › Journal article – Annual report year: 2000

PH-distributions arising through conditioning
Research output: Research - peer-review › Journal article – Annual report year: 2000

Similarity transformations of MAPs
Andersen, A. T., Barker, V. A. & Nielsen, B. F. 1999 In : Mathematical Problems in Engineering. 5, p. 349-359
Research output: Research - peer-review › Journal article – Annual report year: 1999

A Markovian approach for modeling packet traffic with long range dependence
Research output: Research - peer-review › Journal article – Annual report year: 1998

On the implications of certain random permutations of inter-arrival times or counts in a point process
Andersen, A. T. & Nielsen, B. F. 1998 Informatics and Mathematical Modelling, Technical University of Denmark, DTU.
Research output: Research › Report – Annual report year: 1998

On the significance of arrival process descriptions in packet traffic
Research output: Research › Article in proceedings – Annual report year: 1998

On the significance of arrival process descriptors in packet traffic
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998

On the statistical implications of certain random permutations of inter-arrival times or counts in a point process.
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998
A Computational Framework for a Quasi Birth and Death Process
Nielsen, B. F. & Ramaswami, V. 1997 *ITC-15*. Elsevier
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

A Computational Framework for a Quasi Birth and Death Process with a Continuous Phase Variable
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

An application of superpositions of two-state Markovian sources to the modelling of self-similar behaviour
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

On the use of second order descriptors to characterize MAPs
Research output: Research - peer-review › Report – Annual report year: 1997

On the use of second order descriptors to characterize MAP
Andersen, A. T. & Nielsen, B. F. 1997 *Informatics and Mathematical Modelling*, Technical University of Denmark, DTU.
Research output: Research - peer-review › Report – Annual report year: 1997

An application of superpositions of two-state Markovian sources to the modelling of self-similar behaviour.
Research output: Research - peer-review › Report – Annual report year: 1996

Discrete-Time Analysis of a Finite Queue with Rework
Research output: Research - peer-review › Article in proceedings – Annual report year: 1996

Predator foraging in patchy environments: the interrupted poisson process (IPP) model unit
Research output: Research - peer-review › Journal article – Annual report year: 1996

Superposition and Effective Bandwidth of Renewal Streams
Blaabjerg, S., Andersen, A. T. & Nielsen, B. F. 1996 IMM.
Research output: Research - peer-review › Report – Annual report year: 1996

Transferability between Hospitals of Hypercalcaemia Discriminant Functions
Research output: Research - peer-review › Journal article – Annual report year: 1991

Transfer of hypercalcaemia discriminant functions between
Research output: Research - peer-review › Journal article – Annual report year: 1996

Within centre evaluation of hypercalcaemia discriminant
Research output: Research - peer-review › Journal article – Annual report year: 1996

An experimental study of queuing performance of MAPs with apparently self-similar behaviour
Andersen, A. T. & Nielsen, B. F. 1995 IMM.
Research output: Research - peer-review › Report – Annual report year: 1995
Intercept and Asymptotic Behaviour of the nGI/G/1
Research output: Research - peer-review › Article in proceedings – Annual report year: 1995

Modelling and performance study of packet-traffic with self-similar characteristics over several timescales with Markovian Arrival Processes MAP
Research output: Research - peer-review › Article in proceedings – Annual report year: 1995

Modelling of apparently self-similar packet arrival processes with Markovian Arrival Processes MAP
Andersen, A. T., Jensen, A., & Nielsen, B. F. 1995 IMM.
Research output: Research - peer-review › Report – Annual report year: 1995

Statistisk undersøgelse af arbejdsbelastningen på en fødegang
Research output: Research › Journal article – Annual report year: 1995

Analysis of the Telecommunication Demands in a Large, Geographically Dispersed Company
Møller, D. M. & Nielsen, B. F. 1994 IMM.
Research output: Research - peer-review › Report – Annual report year: 1994

Do local hospitals meet the analytical goals for the use of common reference intervals
Research output: Research - peer-review › Journal article – Annual report year: 1994

Modelling a Buffer System as an M/PH/1/N
Møller, D. M. & Nielsen, B. F. 1994 IMM.
Research output: Research - peer-review › Report – Annual report year: 1994

Statistik analyse af arbejdsbelastning på en fødegang
Andersen, A. T., Grove, N. U. & Nielsen, B. F. 1994 IMM.
Research output: Research - peer-review › Report – Annual report year: 1994

Using Program Package NSPCG to Analyze the Trunk Reservation Service Protection Method
Research output: Research - peer-review › Journal article – Annual report year: 1994

Analysis of the Telecommunication Demands in a Large Geographically Dispersed Company
Research output: Research - peer-review › Article in proceedings – Annual report year: 1993

A transient queueing study of delay during changeover in the Message Transfer Part MTP
Research output: Research - peer-review › Article in proceedings – Annual report year: 1993

Evaluation of a method for online control of the metering system in the analogue telephone network
Research output: Research - peer-review › Article in proceedings – Annual report year: 1993

Filtering clinically significant hypercalcaemia from non-significant hypercalcaemia at the laboratory level
Modelling the End-to-End Message Transfer Distribution in the ATCS Communication System

A Phase Type Model for the Trunk Reservation Protection Method

Traffic models of the Message Transfer Part MTP

A Combined Petri-Net and Markov Chain Analysis of an FMS

Alternative diagnostic hypercalcaemia discriminant functions varied on incomplete datasets

Does Quality Control Work Between Local Hospitals?

The Use of Phase Type Distributions for Modelling Packet-Switched Traffic

Discriminant functions in different geographical areas

Handling incomplete data sets with statistical techniques
Frølich, A., Nielsen, B. F., Conradsen, K. & McNair, P. 1990 Handling incomplete data sets with statistical techniques, p. 61-64

Investigation of the transferability of clinical chemical data
Frølich, A. & Nielsen, B. F. 1990 Proceedings of the 8th Nordic Meeting on Medical and Biological Engineering.

Respective roles of PTH and substrate for the l-hydroxylation of vitamin D in primary hyperparathyroidism PHP

The Analysis of a Manufacturing Unit by Sparse Matrix Techniques
Anvendelse af kønetværk til produktionssstyring
Nielsen, B. F. 1989 IMSOR.
Research output: Research - peer-review › Report – Annual report year: 1989

A Tool for Performance Analysis of Product Form Queueing Networks - ANQUEUE
Research output: Research - peer-review › Article in proceedings – Annual report year: 1989

Estimation of traffic models for a packet-switched network
Research output: Research - peer-review › Article in proceedings – Annual report year: 1989

The analysis of service protection methods in service integrated networks by large scale Markov processes
Research output: Research - peer-review › Article in proceedings – Annual report year: 1989

The exact evaluation of the (M/D/1/n
Research output: Research - peer-review › Article in proceedings – Annual report year: 1989

Modelling of Multiple Access Systems with Phase Type Distributions
Nielsen, B. F. May 1988
Research output: Research › Ph.D. thesis – Annual report year: 1988

Service Protection by Time-In
Research output: Research - peer-review › Article in proceedings – Annual report year: 1988

The exact evaluation of the (M/D/1/n
Iversen, V. B., Kragh, A. L. & Nielsen, B. F. 1988 IMSOR.
Research output: Research - peer-review › Report – Annual report year: 1988

A Service Protection Model
Research output: Research - peer-review › Article in proceedings – Annual report year: 1987

Respective roles of PTH and substrate for the l-hydroxylation of vitamin D in primary hyperparathyroidism PHP
Research output: Research - peer-review › Article in proceedings – Annual report year: 1987

Comments to a Paper by V. Giorno, C. Negri and A. G. Nobile
Research output: Research - peer-review › Journal article – Annual report year: 1986

Estimation af parameterværdier i Cox-fordelinger til trafikanalyse
Research output: Research - peer-review › Article in proceedings – Annual report year: 1986

Coxfordelinger egenskaber og anvendelser
Nielsen, B. F. 1985 IMSOR.
Research output: Research - peer-review › Report – Annual report year: 1985
Some Properties of Coxian Distributions with Applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 1985

Projects:

Stochastic Models for Predictive Maintenance
Andersen, J. F., Nielsen, B. F. & Kulahci, M.
Institut stipendie (DTU)
01/01/2018 → 31/12/2020
Project: PhD

Risk assessment with matrix-analytic methods
Campillo Navarro, A., Nielsen, B. F. & Bladt, M.
Institut stipendie (DTU)
15/07/2015 → 14/10/2018
Project: PhD

Matrix-exponential methods in finance, risk and queuing theory
Peralta Gutierrez, O., Nielsen, B. F. & Bladt, M.
Forskningsrådssstipendium
01/10/2015 → 30/09/2018
Project: PhD

Bayesian Modelling for Multi-Agent control
Quinonero, J., Hansen, L. K., Rasmussen, C. E., Nielsen, B. F., Andersen, J. D. & Williams, C. K. I.
Eksternt EU-finansieret
01/04/2001 → 01/10/2004
Project: PhD

Real Time Decision Support in the Face of Evolving Natural Hazards
Anders, A., Nishijima, K., Faber, M. H., Nielsen, B. F., Chatzi, E. & Kroon, I. B.
Ansat eksternt
01/03/2011 → 28/04/2014
Project: PhD

Optimal foraging theory applied to simple models of patchy environments
Forskningsrådssfinansiering
15/03/2001 → 08/02/2007
Project: PhD

Evaluering og dimensionering af signalingssystemer for digitale kommunikationssystemer
Andersen, A. T. & Nielsen, B. F.
Gammel ordning u/skema-SU
01/11/1992 → 13/02/1996
Project: PhD

Call Center Capacity Planning
Nielsen, T. B., Nielsen, B. F., Iversen, V. B., Stolletz, R., Borst, S. & Nyberg, C.
DTU-lønnet stipendie
01/08/2006 → 31/03/2010
Project: PhD

Design of computer experiments
Dehlendorff, C., Andersen, K. K., Kulahci, M., Nielsen, B. F., Lophaven, S. N. & Tyssedal, J.
Applications of and statistical inference for Multivariate Matrix Exponential Distributions
Esparza, L. J. R., Nielsen, B. F., Bladt, M., Thygesen, U. H., Casale, G. & Telek, M.
DTU-lønnet stipendie
15/08/2007 → 30/03/2011
Project: PhD

Performance of Multi-Service Mobile Networks
Benetis, V., Iversen, V. B., Dittmann, L., Nielsen, B. F., Emstad, P. J. & Giner, V. C.
DTU-lønnet stipendie
01/10/2003 → 29/10/2007
Project: PhD

Probabilistic Networks: Diagnostic Decision Support Systems
Andersen, M. N., Winther, O., Hansen, L. K., Nielsen, B. F., Gerds, T. A. & Heskes, T.
DTU-lønnet stipendie
15/05/2003 → 05/11/2007
Project: PhD

Estimationsteori for stokastiske differentailigninger
Nolsøe, K., Madsen, H., Kessler, M., Nielsen, B. F., Jørgensen, B. & Rydén, T.
DTU-lønnet stipendie
01/10/2002 → 15/01/2007
Project: PhD

Identification of Ecological Thresholds of Sustainability in Marine Ecosystems
Møller, J. K., Madsen, H., Carstensen, N. J., Nielsen, B. F., Ditlevsen, S. & Guttorp, P.
1/3 DTU-stip, 2/3 FUR/andet
01/08/2006 → 25/05/2011
Project: PhD

Logics and models for stochastic analysis of information systems
Zeng, K., Nielsen, B. F., Nielsen, F., Zhang, L., Buchholz, P. & Hillston, J.
1/3 FUU, 1/3 inst 1/3 Andet
01/11/2009 → 07/03/2013
Project: PhD

Refinement and application of the method of successive calculations in transport project evaluations
Meisch, D., Nielsen, B. F., Leleur, S., Van Dijk, N. M., Conradsen, K., Telek, M. & Van Dijk, N. M.
1/3 FUU, 1/3 inst 1/3 Andet
01/06/2010 → 02/09/2014
Project: PhD

Methods for analysis and dimensioning of heterogenous telecommunication networks
Møller, D. M. & Nielsen, B. F.
1/3 FUU, 1/3 inst 1/3 Andet
01/02/1992 → 24/04/1995
Project: PhD

Queueing and Optimization Models for Hospital Patient Flow
Andersen, A. R., Stidsen, T. J. R., Nielsen, B. F., Reinhardt, L. B., Røpke, S., Boucherie, R. J. & De Causmaecker, P.
01/07/2015 → 30/06/2018
Project: PhD
TDM prestudy
Nielsen, B. F., Thyregod, P. & Larsen, P. B.
Ukendt
02/04/1997 → 15/05/1997
Project: Research

Hypercalcaemia Discriminant Functions
Nielsen, B. F., Conradsen, K., Frølich, A., McNair, P., Transbøl, I. & Nielsen, J.
01/10/1985 → ...
Project: Research

Research visit at Bell Communications Research
Nielsen, B. F. & Ramaswami, V.
Ukendt
01/09/1995 → 31/08/1996
Project: Research

Activities:

Burden of disease of barbecued meat - who’s at risk?
Jakobsen, L. S. (Guest lecturer), Georgiadis, S. (Guest lecturer), Nielsen, B. F. (Guest lecturer), Stockmarr, A. (Guest lecturer), Boriani, E. (Guest lecturer), Duedahl-Olesen, L. (Guest lecturer), Hald, T. (Guest lecturer), Pires, S. M. (Guest lecturer)
31 Mar 2017
Activity: Talks and presentations › Conference presentations