Curriculum vitae for Claes Jogréus

**September 28, 2016**

1. Personal data

Name: Jogréus, Claes Elis Samuel

Born: June 22, 1960 in Nybro, County of Kalmar

Nationality: Swedish

# B. Education

1979 Gymnasium/high school degree (Natural science), Åkrahällskolan, Nybro.

1983 M.Sc. (civilingenjör), Engineering physics, Lund Institute of Technology (LTH).

1. Ph.D. in Mathematical statistics, LTH/Lund University.

**C.Appointments**

1983-1985 Statistician (assisting), Lund Hospital, especially at the Southern Regional Tumour registry (Regionala tumörregistret för Södra sjukvårdsregionen)

1984-1990 Ph.D. candidate, LTH

1989 (fall) Ph.D. candidate, Colorado State University, Fort Collins, Colorado, USA.

## 1991 (spring) Lecturer in control theory, Kristianstad University College

1991-07-01- Assistant professor (Senior lecturer) in Mathematical statistics, Blekinge Institute of Technology (BTH)

**D.Supervision and similar activities**

2008- **Co-supervisor for the following PhD students during their whole graduate studies**

2014 Hang Zettervall, Applied mathematics, BTH PhD February 14, 2014
 (The thesis is focused on mathematics in medicine)

 Jessica Berner, Applied health technology, BTH PhD March 14, 2014
 (Supervisor concerning statistical methods in health
 technology and public health)

 **Co-supervisor for the following PhD students, limited extent, from Licentiate to Dr**

 Raisa Khamitova PhD in Mathematics Växjö university 2008

 Haidar al-Talibi PhD in Mathematics Linnaeus universitety 2012

 I have not written any paper together with them and my supervision has been limited.

2008 Member of the grading committee at Niklas Lavessons dissertation in Computer Science, BTH

2010 Substitute in the grading committee at Johan Holmgrens dissertation in Computer Science, BTH

I have supervised five B.Sc. theses in mathematical statistics at Lund University, all in Medi-cal statistics with subjects from Cox analyses to spatial statistical models. I have supervised about five MSc theses in Applied mathematics at BTH, most of them in Financial mathe-matics.

During thirteen years I have participated in the organisation committee for the annual Southeastern conference about Mathematics, most of the years as the main responsible.

I am also the local representative at BTH for the Swedish Mathematical Asssociation.
I am a member of the Swedish Statistical Association.

**E.Trust appointments**

1992-93 Responsible for the Engineering college year and Director of studies, Department of Mathematics, BTH.

1993-07-01-1998 Head of department, Department of Telecommunication and Mathematics,
 BTH

1999-2003-06-30 Head of department, Department of Health, Natural Science and Mathematics, BTH

1999 Programme manager, Programmet för matematik och datavetenskap

2002-2007 Deputy Dean of undergraduate education, BTH (Acting Dean fall 2002)

2002-2010 Member of The Board of Undergraduate Education, BTH

2002-2010 Deputy chairman, Teacher Appointment Comittee, BTH

2004-2007-06-30 Programme manager, MSc programme in Mathematical modeling and simulation. I have also developed much of the programme.

2004-2007, 2009 Chairman of the Comittee for MSc programmes in Technology, BTH

2007-2008 Coordinator for the Graduate School in Mathematics and Modeling (PhD programme in Applied Mathematics cooperation between BTH, Kalmar University and Växjö University). I was also, together with Professor Håkan Lennerstad, responsible for the start and development of the PhD programme in Applied Mathematics at BTH.

fall 2009 Research leader of the group Mathematical modeling, BTH

2009-07-01– 2013 Director of studies for PhD programmes at the School of Engineering Sciences (Mathematics, Mechanical Engineering, Electrical Engineering)

**F.Knowledge of statistical software**

SPSS and R, basic knowledge in STATA

**G.Pedagogical education**

Higher Education Pedagogy, basic course 7.5 ECTS

Mathematics in engineering education (mathematical didactics) 7.5 ECTS

Research Supervisor Development course ”FLUS” in cooperation between the Swedish “South-eastern universities”.

**H.Teaching experience**I have teached at university level since spring 1981, since 1991 as an associate professor. 1991-1993 my teaching was 100% and since 1993 70-75%. Below, A corresponds to courses teached the first semester of studies of the subject, B corresponds to the second semester etcetera.

**Teaching in Mathematics from A to B level:**

LTH (as Teaching Assistant (TA)): Multivariable calculus

BTH (as Assistant Professor): Single-variable calculus, Linear algebra, Transform theory, Differential equations (B level)

**Teaching in mathematical statistics and statistics from A to PhD level**

LTH (as TA and doctoral candidate): Probability theory, Statistical theory and statistical methods, Stationary random processes, Reliability theory, Survival analysis

BTH (as Associate Professor): Mathematical statistics (basic course), Statistics (basic course) Random processes, Longitudinal studies and survival analysis, Regression and time series, Basic sampling theory, Non-parametric methods, Epidemiology, Statistics with SPSS.

I have also teached some courses for external participants, e.g. medical doctors, mostly in Survival analysis, Epidemiology and Non-parametric methods.

**I.Advanced courses in mathematics and statistics after my PhD**

*History of Mathematics* 7.5 ECTS, Växjö universitet. Grade: Passed with distinction.

*Differential equations* (with Lie group theory) 7.5 ECTS, BTH. Grade: 5 (on a 5-step scale).

*Lie algebras and transformation groups* 7.5 ECTS, BTH. Grade: 5.

*Group analysis of ordinary differential equations* 7.5 ECTS, BTH. Grade: 5.

*Fuzzy set theory* 7.5 ECTS, BTH. Grade: 5.

*Stochastic models* (Financial Mathematics; I did not participate in the examination) 7.5 ECTS, Halmstad University College.

*Statistical methods in epidemiology: Beyond the Cox model*. Advanced intensive course in Medical Statistics, especially Survival analysis (not scored in the ECTS system), The Karolinska Institute.

# J.Publications

**Books and compendia**
Books and compendia marked with \* are in the field of Medical statistics or equivalent. Two stars mean that the book is important as a general merit. The publications marked with one or two stars are attached.

1. \*Möller, T.R., Jogréus, C. et al (1984). *Cancer incidence in Southern Sweden 1978-1982*. Onkologiskt Centrum, Lund.
2. \*Jogréus, C. (1990). *Några specialområden inom överlevnadsanalysen*. Compendium, Department of Mathematical Statistics, LTH/Lund University.
3. Lennerstad, H. & Jogréus, C. (1999). *Serier och transformer.* Studentlitteratur. (Textbook in Mathematics. Second ed. 2002. Third ed. 2013, 269 pages.)
4. Jogréus, C. (2004). *Introduction to statistical methods for engineers.* Compendium, BTH.
5. Jogréus, C. (2006). *Regression analysis and ANOVA for engineers.* Compendium, BTH.
6. \*\*Jogréus, C. (2009). *Matematisk statistik med tillämpningar*. Studentlitteratur. Textbook, 336 pages. Second ed. 2014, 379 pages. Comment: Except at BTH, the book is also used at KTH and at Gävle University College.
7. Jogréus, C. (2010). *Introduction to discrete random processes*. Compendium, BTH.
8. \*Jogréus, C. & Olsson, H. (2015). *Longitudinella studier och överlevnadsdata.* Studentlitteratur*.* Textbook at graduate level and for scientists, 248 pages.

In 2009, I was responsible for translating Nail Ibragimov’s book *Differential*

*equations and mathematical modelling* from English to Swedish. The book is used for courses at graduate level.

**Scientific papers and reports**Papers marked with \* are in the field of Medical Statistics while those with \*\* are important as a general merit. The publications marked with one or two stars are attached.

**Publications up to and including the PhD dissertation**

1. Jogréus, C. (1983). *Fordonsrörelser och stokastiska vägmodeller.* Technical report 1983:2, Department of Mathematical Statistics, LTH/Lund University.
2. \*Jogréus, C., Möller, T.R., Ranstam, J. & Gullberg, B. (1985). *Cancer i Sverige år 2000 – en studie av olika prognosmodeller.* Läkartidningen vol. 82, nr 10. Comment: one of the forecast models used in this artcle is now the forecast model of Socialstyrelsen.
3. \*Liss, A., Möller, T., Sandblad, B., Jogréus, C. & Olsson, H. (1986). *A simulation based system for regional planning of care resources in oncology*. Conference proceedings, Medinfo 86, North Holland Publishing Company.
4. \*Ranstam, J., Jogréus, C. & Olsson, H. (1986). *Flawed study design and risk of hypertension*. Acta Medica Scandinavia 01/1986, 219: 429-429.
5. Jogréus, C. (1986). *Slepian models applied to a non-linear dynamic problem.* Technical report 1986:6, Department of Mathematical Statistics, Lund Institute of Technology.
6. \*\*Jogréus, C. (1991). *Methods* *for analysis of switching stochastic systems.* PhD dissertation, Department of Mathematical Statistics, LTH/Lund University.

**Publikations after my PhD dissertation (all peer-reviewed)**

1. \*Svensson, J., Ranstam, J., & Jogréus, C. (1991). *Statistical problems in estimating
elimination rates by compartmental models.* Computers and Biomedical Research, 03/1991, 24 (1), 47-57.
2. Ibragimov, N.H., Ünal, G. & Jogréus, C. (2004). *Group analysis of stochastic differential systems*. Archives of ALGA, vol. 1.
3. Ibragimov, N.H., Ünal, G. & Jogréus, C. (2004). *Approximate symmetries and conservation laws for Itô and Stratonovich dynamical systems.* Journal of Mathe-matical Analysis and Applications, 297, pp. 152-168.
4. \*Rakus-Andersson, E., & Jogréus, C. (2007). *The Choquet and Sugeno Integrals as
Measures of Total Effectiveness of Medicines.* Presented at IFSA 2007 World Congress, Cancun, Mexico, June 18-21, 2007.
5. \*Berner, J., Rennemark, M., Jogréus, C. & Berglund, J. (2011). *Distribution of personality and individual characteristics in the Swedish older adult.* Aging and Mental Health 08/2011, 16:119–26.
6. \*Ekström, M., Jogréus, C. & Ström, K. (2012). *Comorbidity and Sex-Related Differences in Mortality in Oxygen-Dependent Chronic Obstructive Pulmonary Disease*. Published in PLoS One 01/2012, April 2012, Vol. 7, Issue 4.
7. \*Berner, J., Rennemark, M., Jogréus, C. & Berglund, J. (2013). *Factors associated with change in Internet usage of Swedish older adults (2004-2010).* Health Informatics Journal, 06/2013, 19 (2), 152-162.
8. \*Berner, J., Rennemark, M., Jogréus, C., Anderberg, P., Sköldunger, A., Wahlberg, M., Elmståhl, S. & Berglund, J. (2015). *Factors influencing Internet usage in older-adults (65 years and above) living in rural and urban Sweden*. Health Informatics Journal 21/2015.
9. \*Thern, E., Sjögren Forss, K., Jogréus, C. & Stjernberg, L. (2015). *Factors associated with active commuting among parents-to-be in Karlskrona, Sweden.* Scandinavian Journal of Public Health, 11.
10. \*Lindberg, T., Bohman, D.M., Elmståhl, S., Jogréus, C. & Berglund, J.S. (2016). *Prevalence of unknown and untreated arrhythmias in an older outpatient population screened by wireless long-term recording ECG*. Clinical Interventions in Aging 11, 1083-1089.

**Papers in popular science and similar**

1. Jogréus, C. (2008). *Det första mötet med sannolikhetsfördelningar (The first encounter with probability distributions)*. The paper is part of the examination of the course Mathematics in the engineering programmes at BTH.
2. Jogréus, C. (2008). *Variationskalkylens uppkomst (The origin of variational calculus)*. The paper is part of the examination of the course History of Mathematics at Linnaeus University.

**Scientific papers in manuscript (n=4)**

1. Stentagg, M., Jogréus, C., Berglund, J.S. et al. *Cross-Sectional Study of Sexual Activity and Satisfaction among Older Adults ≥60 Years of Age.* Planned submission 2016.
2. Jogréus, C., Berglund, J.S., Rennemark, M. et al. *Moderate physical activity and decreased risk of death in old age.* Planned submission 2016.
3. Jogréus, C. *On generalisations of the Gauss approximation formula*. Will be published as a research report during 2016 or beginning of 2017.
4. Jogréus, C., Lindberg, T. & Berglund, J. *Choosing between different frailty distri- butions – some applications to the SNAC study.* Will be published as a research report during 2016 or the beginning of 2017.