

January 2011

CURRICULUM VITAE

Bernt Øksendal

Det Naturvitenskapelige Fakultet, Universitetet i Oslo

I am born in Fredrikstad, Norway, in 1945.

Marital status: I am married to Eva Øksendal, b. Aursland (1947).

We have 3 children: Elise (1971), Anders (1974) and Karina (1981).

1964: Examen Artium at Flekkefjord Gymnas, Norway, with top final grade "Særdeles Tilfredsstillende".

1964 - 1967: Undergraduate student at the University of Oslo, Norway.

June 1968: Married to Eva Aursland.

1968 - 1970: Graduate student and research/teaching assistant at the Department of Mathematics, University of Oslo.

1970: Cand .real degree, University of Oslo. Supervisor was professor Otte Hustad.

1970 - 1971: Ph.D. student and research assistant at the Department of Mathematics, University of California, Los Angeles (UCLA).

1971: Ph.D. degree, UCLA. Supervisor was professor T.W. Gamelin.

1971 - 1972: Research fellowship from NAVF, Norway/The Royal Society, London. The year was spent at The University of Edinburgh, Scotland.

1972 - Nov. 1973: Military service, at Kjevik (near Kristiansand), Norway. My main duty was to teach mathematics at the military technical school at Kjevik (LTBS).

Nov. 1973-July 83: Førsteamanuensis (associate professor) in mathematics at Agder College (Agder Distriktshøgskole), Kristiansand, Norway.

1983 - 1991: Førsteamanuensis at the Department of Mathematics, University of Oslo.

From April 1991: Professor at the Department of Mathematics, University of Oslo.

From Jan. 1992: Professor II at the Institute of Finance and Management Science, Norwegian School of Economics and Business Administration (NHH), Bergen. The position at NHH implies that I spend approximately 20% of my time there, giving courses and supervision in stochastic methods in economics for students and faculty.

Visiting positions

1977 - 1978: Visiting Associate Professor at UCLA.

Jan.-June 1982: Visiting Research Fellow at the University of Edinburgh, Scotland. The fellowship was awarded by the Science and Engineering Research Council, UK.

1984 - 1985: Visiting Associate Professor at the Department of Mathematics CALTECH (California Institute of Technology) and at UCLA.

Jan. 1-30 1986: Visitor at IMA (Institute for Mathematics and its Applications), Minneapolis, Minnesota, as a part of the program for the IMA year for stochastic differential equations.

Jan.-June 1989: Visiting Professor at the Department of Mathematics, University of California at San Diego.

Sept.-Dec.1994: Visiting professor at the University of Botswana (UB) in Gaborone, Africa. This visit was arranged as a part of the cooperation program between UB and the University of Oslo. In Botswana I gave one undergraduate and one graduate course, as well as a research seminar for the staff. I also started the supervision of a graduate student from UB, Stephen Muyangwa, with a M.Phil. project in mathematical finance.

Jan.-May 1999: Visiting professor/visiting research fellow at the Department of Mathematics, University of California at Irvine.

January 2002: Visiting professor for one month at the Department of Mathematics and the Department of Financial Engineering of the National University of Singapore.

November 2002: Visiting professor for one month at the University of Paris VI, Paris, France.

January 2003: Visiting professor for one month at the Department of Mathematics and the Department of Financial Engineering of the National University of Singapore.

November 2004: Visiting professor for one month at the University of Botswana in Gaborone, Botswana.

June 12 – 16, 2006: Visiting professor at the Chinese University of Hong Kong, invited by Professor Xunyu Zhou. I gave one guest lecture during my stay there.

January 1-20, 2007: Visiting professor at the Indian Science Institute, Bangalore, India. There I gave an intensive course on Malliavin Calculus and Applications.

January 2008: Visiting professor for one month at the Department of Mathematics and the Department of Economics at the Nanyang Technological University, Singapore.

April-August 2009: Visiting professor for a total of 4 weeks at the University of Manchester, U.K.

Awards, prizes and selected commissions

1964: Winner of the national mathematical competition "Kronprinsens prisoppgaver for norske gymnasiaster", organized by the Norwegian Mathematical Society.

August 1992 -July 1996: Appointed VISTA professor by The Norwegian Academy of Science and Letters in cooperation with Den Norske Stats Oljeselskap a.s. (Statoil). This was a research position with no administrative or teaching obligations except supervision of graduate students.

May 1996: Elected member of the Norwegian Academy of Science and Letters.

May 1996: Winner of the Nansen Prize for 1996, for my research in stochastic analysis and its applications.

1996-2007: Initiator and Norwegian coordinator of the NUFU-sponsored Southern African graduate program "Mathematical Modelling", based in Harare, Zimbabwe.

January 2002: Elected member of the Royal Norwegian Science Society.

From 2005: Chair of the European Science Foundation program "Advanced Mathematical Methods in Finance (AMaMeF)". A total of 16 European countries participate in the program. It has an annual budget of about NOK1,5 million.

2008-2013: Initiator and Norwegian coordinator of the Norwegian-Southern African cooperation program "Mathematics and its Applications in Southern Africa", sponsored by Norad's Program for Master Studies (NOMA). The program has a total of about NOK 8 millions over 6 years.

2009: Awarded the European Research Council Advanced Grant for 5 years for the project "Innovations in Stochastic Analysis and Applications" (InnoStoch). The total amount awarded is about NOK 16 millions.

Administration

Jan.1976-July 77: Member of the Board of College Education, Agder region. This is the board that coordinates and plans the education on the college level in the Agder counties of Norway.

Jan.1987-Dec.88: Chairman of the Mathematics Department, Section A, University of Oslo.

Jan.1987-Dec.88: President of the Norwegian Mathematical Society.

July 1992: Co-organizer of the 4th Workshop on Stochastic Analysis and Related Topics, held in Oslo, Norway.

1992: One of the initiators of the new program of study "Mathematics and Economics" at the Mathematics Department, University of Oslo.

Every year since 1993 I have been a co-organizer of the annual event "Workshop on Mathematics and Economics", held at the Department of Mathematics, University of Oslo.

July 1994: Co-organizer of the 5th Workshop on Stochastic Analysis and Related Topics, held in Silivri, Turkey.

Jan.-June 1995: Scientific Director of the program "Stochastic analysis and Stochastic Processes", held at the Mittag-Leffler Mathematical Research Institute in Djursholm, Sweden.

July 1996: Co-organizer of the 6th Workshop on Stochastic Analysis and Related Topics, held in Geilo, Norway.

December 1997: Co-organizer of the international conference "Workshop on Mathematical Finance" held at the University of Botswana, Africa.

June 1998: Co-organizer of the Workshop on Mathematical Finance, held at the Sophus Lie Conference Centre, Nordfjordeid, Norway.

July 1998: Co-organizer of the 7th Workshop on Stochastic analysis and Related Topics, held in Kusadasi, Turkey.

August 1999: Co-organizer of the Second Nordic-Russian Symposium on Stochastic Analysis in Beitostølen, Norway.

Nov./Dec. 1999: Co-organizer of the Second Botswana Symposium on Mathematical Finance in Gaborone, Botswana.

June 2000: Co-organizer of the session on Stochastic Differential Equations and Financial Mathematics at the AMS-Scand Conference in Odense 13 -16 June 2000.

June/July 2001: Co-organizer of the Midnight Sun Workshop on Stochastic Analysis and Mathematical Finance, Kautokeino, Norway.

Dec.2001: Co-organizer of the Third Botswana Symposium on Mathematical Finance in Gaborone, Botswana.

August 2003: Co-organizer of the Arctic Workshop on Stochastic Analysis and Mathematical Finance, Tromsø, Norway.

Dec.2003: Co-organizer of the SAMSA Symposium on Mathematical Finance and Industrial Mathematics, Livingstone, Zambia.

December 2004: Co-organizer of the SAMSA Symposium 2004 at Polokwane, South Africa.

July 29 - August 4, 2005: Co-organizer of the Abel Symposium on Stochastic Analysis and Applications, held at the University of Oslo, Norway.

December 2005: Co-organizer of the SAMSA Symposium 2005 in Blantyre, Malawi.

November 2006: Co-organizer of the SAMSA Conference 2006 in Gaborone, Botswana.

June 2007: Co-organizer of the AMaMeF workshop “Innovations in Mathematical Finance”, held in Loen, Norway.

Sept.- December 2007: Scientific Director of the program "Stochastic Partial Differential Equations", held at the Mittag-Leffler Mathematical Research Institute in Djursholm, Sweden.

November 2007: Co-organizer of the SAMSA Conference 2007 in Windhoek, Namibia.

May 2009: Co-organizer of the 4th General Conference on Advanced Mathematical Methods for Finance (AMaMeF), Ålesund, Norway, May 4-10.

October 2009: Co-organizer of the “Conference on Stochastic Analysis and Applications”, held in Hammamet, Tunisia, October 12-16.

Editorial appointments

1979 - 1988: Member of the editorial board of NORMAT (Nordisk Matematisk Tidskrift).

1991 - 1999: Member of the editorial board of the international mathematical research journal "Potential Analysis".

1996 - 2002: Associate editor of the international mathematical research journal "Finance and Stochastics".

From 1997 : Associate editor of the international mathematical research journal "Journal of Applied Mathematics and Optimization".

From 1998 : Associate editor of the international mathematical research journal "Stochastics "

From 2002 : Associate editor of the international mathematical research journal "Stochastic Analysis and Applications"

From 2002 : Member of the Advisory Board of the book series "Applications of Mathematics: Stochastic Modeling and Applied Probability", published by Springer.

2006 - 2008: Member of the editorial board of the international research journal “Infinite Dimensional Analysis, Quantum Probability and Related Topics”

From 2008: Associate editor of the international research journal Portugaliae Mathematicae.

Students

I have been the supervisor of the following dr.scient / Ph.D. students:

1) Jan Ubøe (completed 1989)

- 2) Håkon Gjessing (external supervisor) (completed 1995)
- 3) Fred Espen Benth (completed 1995)
- 4) Jon Gjerde (completed 1996)
- 5) Ismail Elsanosi (completed 2000)
- 6) Kristin Reikvam (completed 2001)
- 7) Bjørnar Larssen (completed 2002)
- 8) Nils Christian Framstad (completed 2002)
- 9) Cloud Makasu (completed 2002)
- 10) Alberto Lanconelli (completed 2004)
- 11) Thilo Meyer.Brandis (completed 2005)
- 12) Rune Johansen (completed 2005)
- 13) Sure Mataramvura (Zimbabwe) (completed 2007)
- 14) An Ta Thi Kieu (completed 2008)
- 15) Yeliz Yolcu Occur (completed 2009)

Currently I am supervising the following Ph.D. students:

Carl Peter Kirkebø

Eliot Chikodza (Zimbabwe)

In addition I have supervised about 30 cand. scient/ Masters students.

Conferences and guest lectures

I have attended more than 300 workshops and conferences since 1969. Since January 2009 I have participated at the following:

March 26-27, 2009: Invited guest lectures on Malliavin Calculus and Applications, Syd-Dansk Universitet, Odense, Denmark.

May 26-29, 2009: Invited lecture at the workshop “Non-semimartingale Methods in Finance”, Technical University of Helsinki, Helsinki, Finland.

June 23-26, 2009: Invited lecture at the conference “Optimal Stopping and

Applications”, University of Åbo, Finland.

June 29-July 3, 2009: Invited lecture at the “Workshop on Stochastic Analysis and Finance”, City University of Hong Kong, Hong Kong, China.

August 10-14, 2009: Invited intensive course on Malliavin Calculus and Applications, University of Manchester, UK.

August 17-20, 2009; Invited lecture at the “Third Workshop on PDE in Finance”, KTH, Stockholm, Sweden.

August 24-28, 2009: Invited lecture at the conference “SDEs, SPDEs and Related Topics”, University of Manchester, UK.

September 7-10, 2009: Invited lecture at the workshop “Numerical and Analytical Solutions of Stochastic Delay Differential Equations”, University of Chester, UK.

October 12-16, 2009: Invited lecture at the conference “Stochastic Analysis and Applications” in Hammamet, Tunisia.

November 23-27, 2009: Invited lecture at the SAMSA 2009 Conference in Dar es Salaam, Tanzania.

December 9-16, 2009: Invited lecture at the workshop on optimal stopping and singular control, National University of Singapore, Singapore.

January 25-29, 2010: Invited lecture at the Bachelier Workshop in Metabief, France. Title of talk: “Backward stochastic differential equations with respect to general filtration and applications to insider finance”.

March 8-12, 2010; Invited to give an intensive course (16 lectures) on “BSDEs and risk minimization” at the University of Tunis, Tunisia.

March 24, 2010: Invited lecture at the University of Warwick, UK. Title of talk: “Backward stochastic differential equations with respect to general filtration and applications to insider finance”.

March 25, 2010: Invited lecture at the University of Swansea, Wales. Title of talk: “Backward stochastic differential equations with respect to general filtration and applications to insider finance”.

April 7, 2010: Invited to give an intensive course (4 lectures) on “Malliavin Calculus and Applications to Finance” at the St Andrews University, Scotland.

April 12-14, 2010: Invited lecture at the Mark Davis Workshop “Stochastics, Control and Finance” at Imperial College, London. Title of talk: “Backward stochastic differential equations with respect to general filtration and applications to insider finance”.

May 20-21, 2010: Invited lecture at the Workshop on Stochastic Analysis and Applications” at the Linnæus University, Växjö, Sweden. Title of talk: “Optimal control of stochastic delay equations and time-advanced BSDEs”.

June 7-8, 2010: Invited to give an intensive course (8 lectures) on “Malliavin Calculus and Applications to Finance” at the Prague Summer School in Quantitative Finance, Prague, Czech Republic.

June 14-15, 2010: Invited lecture at the 9th Workshop on Stochastic Analysis and Related Fields” at Telecom ParisTech, Paris. Title of talk: “Optimal control of stochastic delay equations and time-advanced BSDEs”.

October 25-28, 2010: Invited lecture at the workshop “ New Advances in BSDEs for financial engineering applications”, Tamerza, Tunisia. Title of talk: “Optimal control of stochastic delay equations and time-advanced BSDEs”.

November 18-20, 2010: Invited lecture at the Workshop on Malliavin Calculus for Jump Processes”, University of Marne-la-Vallee, Paris. Title of lecture: “Malliavin calculus for Lévy processes: The chaos expansion approach”.

November 29-December 3, 2010: Invited lecture at the Southern African Mathematical Sciences Association (SAMSA) Conference 2010 in Gaborone, Botswana. Title of talk: “Optimal control of stochastic delay equations and time-advanced BSDEs”.

December 15-18, 2010: Invited plenary lecture at the Quantum mathematical Finanec (QMF) Conference in Sydney, Australia. Title of talk: “Optimal control of stochastic delay equations and time-advanced BSDEs”.

Other scientific activity

1989 - 1997: Leader of the project "Fluid flow in stochastic reservoirs", where flow in porous media is studied using stochastic differential equations. The project is supported by VISTA, a research cooperation between The Norwegian Academy of Science and Den Norske Stats Oljeselskap A.S. (Statoil).

1996 - 2002: Norwegian coordinator of the Nordic network "Stochastic Analysis and Applications", led by Professor Paavo Salminen, Aabo University, Finland. This is a research cooperation between the Nordic countries, sponsored by NorFa.

1996 - 2007: Norwegian coordinator and one of the initiators of the NUFU program Mathematical Modelling, which was a cooperation between the University of Oslo and the University of Zimbabwe, aiming to enhance the education of mathematicians in the region of Southern Africa.

1999 - 2000: Agnès Sulem at INRIA, Paris, and I run the research project "Stochastic Control and Applications. The project was supported by the Norwegian Research Council, under the Aurora program "Collaboration Research Projects Between Norway and France ".

2002 - 2006: Elected member of the Committee for Developing Countries (CDC).

2003: Appointed as a Principal Investigator for the stochastic analysis group of the newly established Center of Excellence, called Center of Mathematics for Applications (CMA), located at the Department of Mathematics, University of Oslo..

2005 - 2008: Elected member of the Selection Committee for the Ramanujan Prize for Mathematicians from Developing Countries, established by the International Mathematical Union and the Niels Henrik Abel Foundation.

2008: Norwegian coordinator of the new NOMA program "Southern African Masters Program in Mathematical Modelling", based in Tanzania.

I have refereed a number of papers for international research journals. I have been a member of several hiring committees for positions in Norway and Sweden and I have been an opponent in 15 doctoral disputations, 5 in Norway, 1 in Sweden, 2 in Finland, 1 in Denmark and 6 in France.

List of publications

See separate document.