

Kaj Børge Hansen
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Born March 17, 1946, in Denmark
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2012-11-26

Curriculum Vitae

1. University Degrees

(1) EXAM. ART./DIPLOMA (Århus, 1973) in Philosophy	2 years
(2) FIL KAND/BA (Uppsala, 1975) in Theoretical Philosophy 120 ECTS Practical Philosophy 30 ECTS, Mathematics 30 ECTS	180 ECTS
(3) FIL LIC/MA (Uppsala, 1989) in Theoretical Philosophy	+180 ECTS
(4) FIL DR/PHD (Uppsala, 1996) in Theoretical Philosophy	+150 ECTS
(5) FIL KAND/BSc (Uppsala-Mälardalen, 2003) in Mathematics 150 ECTS, Physics 30 ECTS	+150 ECTS
(6) FIL MAG/MSc (Uppsala-Mälardalen, 2003) in Mathematics 240 ECTS, Physics 30 ECTS	+90 ECTS
(7) MS (Stockholm-Luleå-Bahía Blanca-Baton Rouge, 2004) in Logic	+60 ECTS

2. Content of the Education

2.1 Undergraduate education in PHILOSOPHY (Århus-Uppsala)

The education in philosophy at Århus University was devoted mostly to the history of philosophy and classical problems, both in theoretical and practical philosophy; but it also contains some logic and philosophy of science. The 30 ECTS-credits in practical philosophy in the BA degree (Uppsala) are based on the studies at Århus: History of philosophy (Hartnack) and classical and modern texts in practical philosophy (including Hume, Kant, Mill, Moore, Hare, Searle). Of the credits in theoretical philosophy in the BA degree at Uppsala, 45 ECTS-credits are based on the studies at Århus: History of philosophy (Wedberg I-III), elementary logic (Mates, Suppes, Lemmon, Carney & Scheer), modal logic (Hughes & Cresswell), classical and modern texts in theoretical philosophy (including Descartes, Hume, Wittgenstein, Ryle, Smart, Armstrong), and philosophy of science (Achinstein). The remainder of the undergraduate education in the logic programme in theoretical philosophy at Uppsala, 75 ECTS-credits, consists almost exclusively of courses in logic, set theory, and discrete mathematics.

ECTS-credits

BA thesis: *Decision Procedure for the Brouwerian System*

7.5

2.2 Postgraduate education in THEORETICAL PHILOSOPHY (Uppsala)

Courses

ECTS-credits

(1) Axiomatic set theory

7.5

(2) Proof theory and logical systems

7.5

(3) Recursion theory	15.0
(4) Model theory	15.0
(5) Automata theory and system theory	15.0
(6) Intuitionistic logic and mathematics	7.5
(7) Probability theory and inductive logic	7.5
(8) Philosophy of science	7.5
(9) Game and decision theory	7.5
(10) Philosophy of physics: Space and time	7.5
(11) Philosophy of quantum mechanics	7.5
(12) Foundations of quantum mechanics	7.5
(13) Hilbert space and quantum logic	7.5
(14) Foundations of mathematics	7.5
(15) Foundations of relativity theory	7.5
(16) Literature related to the theses	15.0
Fil Lic/MA thesis: <i>Ideas on Bell's Theorem</i>	30.0
Fil Dr/PhD thesis: <i>Logical Physics: Quantum Reality Theory</i>	150.0

2.3 Master of Science in MATHEMATICS (major) and PHYSICS (minor) (Uppsala-Mälardalen)

<i>Courses</i>	<i>ECTS-credits</i>
(1) Mathematics A, basic (UU)	30.0
(2) Mathematics B, intermediate (UU)	30.0
(3) Mathematical models, intermediate (UU)	7.5
(4) Discrete mathematics NV1, intermediate (UU)	7.5
(5) Analysis F3, intermediate (UU)	7.5
(6) Automata theory and formal languages MN1, intermediate (UU)	7.5
(7) Combinatorics MN1, intermediate (UU)	7.5
(8) Geometry ÄL1, intermediate (UU)	7.5
(9) Differential geometry, intermediate (UU)	10.0
(10) Linear algebra MN3, intermediate (UU)	7.5
(11) Algebra MN3, intermediate (UU)	7.5
(12) Differential equations C, intermediate (MDU)	7.5
(13) Topology D, advanced (UU)	9.0
(14) Functional analysis D, advanced (UU)	9.0
(15) Mathematical methods of mechanics D, advanced (UU)	9.0
(16) Applied mathematics, advanced (UU)	10.0
(17) Differential geometry D, advanced (MDU)	7.5
(18) Partial differential equations, advanced (MDU)	7.5
(19) Probability theory MN1, basic (UU)	7.5
(20) Numerical analysis M1, basic (UU)	7.5
(21) Programming M1, basic (UU)	7.5
(22) Programming M2, basic (UU)	6.0
(23) General physics A, basic (MDU)	15.0
(24) Mechanics B, intermediate (MDU)	7.5
(25) Mathematical methods of physics C, intermediate (MDU)	7.5
Bachelor thesis (MDU): <i>A Study of König's Lemma</i>	15.0
Master thesis (MDU): <i>New Definitions of the Recursive Functions</i>	15.0

2.4 Master of Science in APPLIED LOGIC (Stockholm-Luleå-Bahía Blanca-Baton Rouge)

<i>Courses</i>	<i>US-credits/ECTS-credits</i>
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- (1) Mathematical logic, advanced (SU-FBR)
(* Hamilton, *Logic for Mathematicians*.*)
 - (2) Theory of computation, advanced (LUT-FBR)
(* Lewis and Papadimitriou, *Elements of the Theory of Computation*.*)
 - (3) Logic for applications, advanced (LUT-FBR)
(* Nerode and Shore, *Logic for Applications*.*)
 - (4) Automated theorem proving, advanced (UNS-FBR)
(* Fitting, *First-Order Logic and Automated Theorem Proving*.*)
 - (5) Foundations of real and complex analysis, advanced (FBR)
(* Rudin, *Real and Complex Analysis*.*)
 - (6) Foundations of algebra, advanced (FBR)
(* Lang, *Algebra, Part One*.*)
 - (7) Final assessments 20.0/30.0
 - Master thesis (FBR): *Applied Logic: Logical Foundations of Logic Programming* 20.0/30.0
- (* All credits for the courses (1)-(4) have been awarded on the basis of my teaching at the University of Stockholm (SU), at Luleå University of Technology (LUT), and at Universidad Nacional del Sur, Bahía Blanca (UNS); see items 4.3, 4.4, and 4.5 in Section 4 *Teaching* below. Courses and master thesis at Fairfax-Baton Rouge (FBR).*)

3. Docentship

Docent of Theoretical Philosophy and Logic at Uppsala University 1996-12-17.

4. Teaching

4.1 *Department of Philosophy, Uppsala University, Uppsala, Sweden*

Between the autumn semester 1975 and the autumn semester 1993, I taught the following courses in theoretical philosophy, each comprising 7.5 ECTS-credits:

- (1) History of modern philosophy
(* Wedberg, *A History of Philosophy: From Bolzano to Wittgenstein*.*)
- (2) Set theory and logic (2 times)
(* Stoll, *Set Theory and Logic*.*)
- (3) Probability theory and inductive logic (2 times)
(* Kemeny, Snell & Thompson, *Introduction to Finite Mathematics* + Salmon, *Foundations of Scientific Inference*.*)
- (4) Philosophy of science
(* Papp, *Introduction to Philosophy of Science* + articles.*)
- (5) Game and decision theory
(* Luce & Raiffa, *Games and Decisions*.*)
- (6) Philosophy of physics: Space and time
(* Sklar, *Space, Time, and Spacetime*.*)
- (7) Philosophy of quantum mechanics
(* Kastler, *Cette étrange maitère* + Rae, *Quantum Theory: Illusion or Reality?* + articles.*)
- (8) Mathematical logic I
(* Enderton, *A Mathematical Introduction to Logic*.*)

- (9) Mathematical logic II
(* Enderton, *A Mathematical Introduction to Logic*.*)
- (10) Intuitionistic logic and mathematics
(* Dummett, *Elements of Intuitionism*.*)
- (11) Foundations of quantum mechanics
(* Hughes, *The Structure and Interpretation of Quantum Mechanics*.*)
- (12) Hilbert space and quantum logic
(* Cohen, *Introduction to Hilbert Space and Quantum Logic* + articles.*)
- (13) Foundations of mathematics
(* Hatcher, *Logical Foundations of Mathematics*.*)
- (14) Foundations of relativity theory
(* Angel, *Relativity: The Theory and its Philosophy*.*)
- (15) Exams for non-taught courses in logic, axiomatic set theory, and philosophy of science.

The courses 6, 7 and 10-14 were cross-disciplinary with participants from philosophy, mathematics, physics, physical chemistry, quantum chemistry, and technology.

Mostly I have taught as teaching assistant ("timlärare"). During the autumn semester 1988, I served as senior lecturer/assistant professor (substitute 50%). The teaching comprises a total of **340** hours of teaching

4.2 Department of Information Science, Division of Computer Science, Uppsala University, Uppsala, Sweden

Between the autumn semester 1986 and the autumn semester 2003, I taught the following 7.5 ECTS-credits course in the programme of computer and system science:

- (1) Logic, 7.5 ECTS-credits (5 times)
(* Prawitz, *ABC i symbolisk logik* + Hansen, *Kompendium i logik [Compendium of Logic]*.*)
 - (2) Logic, 7.5 ECTS-credits (11 times)
(* Hansen, *Grundläggande logik [Elementary Logic]*, Chs. 1-12.*)
- Teaching assistant ("timlärare") **1488** hours of teaching

4.3 Department of Computer and System Science, University of Stockholm and Royal Institute of Technology, Stockholm, Sweden

During the autumn semester 1986, I taught a 7.5 ECTS-credits course for advanced undergraduate students and beginning graduate students:

- (1) Mathematical logic, 7.5 ECTS-credits
(* Hamilton, *Logic for Mathematicians*.*)
- Teaching assistant ("timlärare") **39** hours of teaching

4.4 Department of Mathematics, Luleå University of Technology, Luleå, Sweden

During the spring semester 1996, I taught a 6.0 ECTS-credits course, mainly for technology students specialising in soft ware computer science or computer technology, in the third or fourth year of their education:

- (1) Theory of computation, 6.0 ECTS-credits
(* Lewis & Papadimitriou, *Elements of the Theory of Computation*.*)
- Lecturer/assistant professor (substitute 48%) **80** hours of teaching

During the spring semester 1997, I taught a 6.0 ECTS-credits course, mainly for technology students specialising in soft ware computer science or computer technology, in the third or fourth year of their education:

(2) Logic, 6.0 ECTS-credits

(* Nerode & Shore, *Logic for Applications* + Proof construction in the proof editor *JAPE*.)

Senior lecturer/associate professor (substitute 48%) **80** hours of teaching

4.5 *Departamento de Ciencias y Ingeniería de la Computación, Universidad Nacional del Sur, Bahía Blanca, Argentina*

During the spring semester 1998, I taught a 7.5 ECTS-credits course for PhD students:

(1) Logic for Computer Applications, 5 credit points (7.5 ECTS-credits)

(* Fitting, *First-Order Logic and Automated Theorem Proving* + Hansen, *Applied Logic*, Chapter 9.)*

Visiting teacher **26** hours of teaching

4.6 *Åland Institute of Technology, Mariehamn, Åland, Finland*

From the autumn semester 1999 until the autumn semester 2001, I taught a 9.0 ECTS-credits course on logic in the IT-programme:

(1) Logic, 9.0 ECTS-credits (3 times)

(* Hansen, *Grundläggande logik [Elementary Logic]*, Chs. 1-13.)*

Teaching assistant **288** hours of teaching

5. Appointments and Grants

(1) Uppsala University, Uppsala, Sweden: Lecturer/assistant professor (substitute, 50%) in Theoretical Philosophy, Department of Philosophy, 1988.04.01 - 1988.08.31.

(2) Luleå University of Technology, Luleå, Sweden: Lecturer/assistant professor (substitute, 48%) of Mathematics, Department of Mathematics, 1996.02.01 - 1996.06.30.

(3) Luleå University of Technology, Luleå, Sweden: Senior lecturer/associate professor (substitute, 48%) of Mathematics, Department of Mathematics, 1997.02.01 - 1997.06.30.

(4) Universidad Nacional del Sur, Bahía Blanca, Argentina. "Visiting professor" at Departamento de Ciencias y Ingeniería de la Computación, 1998.05.04 - 1998.05.16.

(5) Uppsala University, Uppsala, Sweden: The Burman docent grant, 1997.07.01 - 2009.06.30 and 2010.01.01 - 2012.12.31.

6. Publications

6.1 Books

(1) *Ideas on Bell's Theorem*. Uppsala Philosophical Studies, Uppsala, 1989. vi+89 pp.
(* Licentiate/M.Litt. thesis in theoretical philosophy at Uppsala University.)*

(2) *Kompendium i logik [Compendium on Logic]*. Uppsala Philosophical Studies, Uppsala, 1989. viii+161 pp.

(3) *Grundläggande logik [Fundamentals of Logic]*. First edition. Studentlitteratur, Lund, 1992. 309 pp.

(4) *Grundläggande logik [Fundamentals of Logic]*. Second edition. Studentlitteratur, Lund, 1994. 405 pp.

(5) *Logical Physics: Quantum Reality Theory*. Library of Theoria, Thales, Stockholm, 1996. x+255 pp.

(* Doctoral dissertation in theoretical philosophy at Uppsala University. Reviews: (5.1) *Mathematical Reviews*, Vol. 97m: 81002, 1997. (5.2) *Zentralblatt für Mathematik und ihre Grenzgebiete [Mathematical Abstracts]*, 1999: 906.03001. (5.3) *Studia Logica*, Vol. 63:3, 1999, pp. 432-435.*)

(6) *Applied Logic*. Acta Universitatis Upsaliensis, Uppsala, 1996. 257 pp. Preprint under the title *Topics in Logic*, UPPP 14, Department of Philosophy, Uppsala, 1996.

(* Collection of essays. Reviews: (6.1) *Zentralblatt für Mathematik und ihre Grenzgebiete [Mathematical Abstracts]*, Vol. 861, 1997, pp. 16-17. (6.2) *Mathematical Reviews*, Vol. 97j: 03001, 1997. (6.3) *Studia Logica*, Vol. 63:3, 1999, pp. 426-432.

(7) *Grundläggande logik [Fundamentals of Logic]*. Third edition. Studentlitteratur, Lund, 1997. 529 pp.

(8) *Essays 2002: Logic and Philosophy*. UPPP 2, 2002. 128 pp.

(9) *Grundläggande logik [Fundamentals of Logic]*. Fourth edition. Studentlitteratur, Lund, 2003. 599 pp.

(10) *Grundläggande logik: Lösningsdel [Fundamentals of Logic: Solutions to Exercises]*. Studentlitteratur, Lund, 2003. 232 pp. In collaboration with Taeda Tomic. Only Internet version:

www.studentlitteratur.se/logik/

(11) *Transformation Theory: Relativity Revised 1-5*. UPPP 1, 2007, 121 pp.

6.2 Articles

(1) "A Note on Entailment." In Pauli (ed.), *Philosophical Essays Dedicated to Lennart Åqvist*. Uppsala Philosophical Studies, Uppsala, 1982. 4 pp.

(2) "A New Paradox?" In Needham and Odelstad (eds.), *Changing Positions*. Uppsala Philosophical Studies, Uppsala, 1986. 2 pp.

(3) "Two Notes on Philosophy of Science." In Lindström and Rabinowicz (eds.), *In So Many Words*. Uppsala Philosophical Studies, Uppsala, 1989. 14 pp.

(4) "Some Derivations of Bell's Inequality." *Danish Yearbook of Philosophy*, Vol. 29, 1994. Preprint UPPP 3, 1993. 42 pp. Included in *Logical Physics*.

(5) "An Inverse of Bell's Theorem." *Journal for General Philosophy of Science*, March 1995. Preprint UPPP 5, 1991. 13 pp. Included in *Logical Physics*.

(6) "Russell's Antinomy and Diagonalisation." UPPP 2, 1994. 3 pp. Included in *Applied Logic*.

(7) "An Upward Skolem Paradox." UPPP 3, 1994. 8 pp. Included in *Applied Logic*.

(8) "Some Results on ω -Consistency." UPPP 4, 1994. 12 pp. Included in *Applied Logic*.

(9) "Conditionals and the Foundations of Logic." UPPP 4, 1995. 36 pp. Included in *Applied Logic*.

(10) "An Analysis of the EPR Argument." UPPP 5, 1995. 122 pp. Included in *Logical Physics*.

- (11) "What is Philosophy?" *UPPP* 4, 1996. 29 pp. Included in *Applied Logic*.
- (12) "Logical Rationalism: A Programme." *UPPP* 5, 1996. 13 pp. Included in *Applied Logic*.
- (13) "Proofs and Examples in Logic and Geometry." *UPPP* 6, 1996. 22 pp. Included in *Applied Logic*.
- (14) "Logical Foundations of Logic Programming." *UPPP* 7, 1996. 91 pp. Included in *Applied Logic*.
- (15) "Realism and Causality in Quantum Mechanics." In Lindström, Sliwinski, and Österberg (eds.), *Odds and Ends*. Uppsala Philosophical Studies, Uppsala, 1997. 15 pp. Preprint *UPPP* 16, 1996.
- (16) "Gödel's Philosophy of Mathematics." Book review in *Lychnos* 1997. Preprint *UPPP* 1, 1997. 17 pp.
- (17) "The Twin Paradox Without Acceleration." In Lindahl, Needham, and Sliwinski (eds.), *For Good Measure*. Uppsala Philosophical Studies, Uppsala, 1997. 9 pp. Preprint *UPPP* 4, 1997.
- (18) "A Note on König's Lemma." In Sliwinski (ed.), *Philosophical Crumbs*. Uppsala Philosophical Studies, Uppsala, 1999. Preprint *UPPP* 1, 1998. 11 pp.
- (19) "Recursion Without the μ -Operator." In Lindahl, Odelstad, and Sliwinski (eds.), *Not Without Cause*. Uppsala Philosophical Studies, Uppsala, 1998. Preprint *UPPP* 2, 1998. 14 pp.
- (20) "Stig Kanger as an Educator and as a Thinker." In Holmström-Hintikka, Lindström, and Sliwinski (eds.), *Collected Papers of Stig Kanger with Essays on his Life and Work*, Vol. 2. Kluwer, Dordrecht, 2001, pp. 29-30. 2 pp.
- (21) "Kanger's Ideas on Non-Well-Founded Sets: Some Remarks." In Holmström-Hintikka, Lindström, and Sliwinski (eds.), *Collected Papers of Stig Kanger with Essays on his Life and Work*, Vol. 2. Kluwer, Dordrecht, 2001, pp. 69-86. Preprint *UPPP* 5, 1998. 18 pp.
- (22) "Two Paradoxes Revisited." In Carlson and Sliwinski (eds.), *Omnium-Gatherum*. Uppsala Philosophical Studies, Uppsala, 2001. Preprint *UPPP* 4, 2000. 19 pp.
- (23) "Interpreting the Quantum World." Book review in *Lychnos* 2001. Preprint *UPPP* 2, 2001. 10 pp.
- (24) "A Study of König's Lemma." Preprint *UPPP* 5, 2002. 61 pp.
(* Bachelor thesis in Mathematics.*)
- (25) "New Definitions of the Recursive Functions." Preprint *UPPP* 6, 2002. 45 pp.
(* Master thesis in Mathematics.*)
- (26) "Free Will and Operationalism." In Segerberg and Sliwinski (eds.), *A Philosophical Smorgasbord: Essays on Truth, Action, and other Things*. Uppsala Philosophical Studies, Uppsala, 2003. Preprint *UPPP* 1, 2003. 18 pp.
- (27) "Applied Logic: Logical Foundations of Logic Programming." Baton Rouge, 2004. 146 pp. (* Master thesis in Logic.*)
- (28) Articles on "Allais' paradox", "Epistemic logic", "Hintikka, Jaakko", and "Kanger, Stig" in Thomas Mautner (ed.), *Dictionary of Philosophy*, second edition. Penguin Books, London, 2005.

- (29) "Analysis of Fast Unification: An Exercise in Applied Logic." In Lagerlund, Lindström, and Sliwinski (eds.), *Modality Matters*. Uppsala Philosophical Studies, Uppsala, 2006. 23 pp. Abbreviated version of Preprint *UPPP* 1, 2004. 37 pp.
- (30) "Remarks on the Private Language Argument." In Forsberg, Rider, and Segerdahl (eds.), *Tankar tillägnade Sören Stenlund [Thoughts Dedicated to Sören Stenlund]*. Uppsala Philosophical Studies, Uppsala, 2008. 15 pp. Preprint *UPPP* 2, 2007.
- (31) "The Real Twin Paradox." Preprint *UPPP* 3, 2007. 12 pp.
- (32) "Remarks on Wittgenstein's Philosophy: Private Language and Meaning." *Danish Yearbook of Philosophy*, Vol. **42**, 2007, pp. 33-73. Preprint *UPPP* 4, 2007.
- (33) "Remarks on Wittgenstein's Philosophy: Philosophical Method and Contradictions." *Danish Yearbook of Philosophy*, Vol. **43**, 2008, pp. 7-40. Preprint *UPPP* 4, 2007.
- (34) "What the Liar Said to Grelling". In Johansson, Sliwinski, and Österberg (eds.), *Logic, Ethics, and All That Jazz*. Uppsala Philosophical Studies, Uppsala, 2009. Abbreviated version of preprint *UPPP* 1, 2009, "Epimenides, Russell, Grelling." 31 pp.
- (35) "Conceptual Foundations of Operational Set Theory." *Danish Yearbook of Philosophy*, Vol. **45**, 2010, pp. 29-50. Preprint *UPPP* 1, 2010.
- (36) "Formal Logic, Models, Reality." In Rysiek Sliwinski och Frans Svensson (eds.), *Neither/Nor*. Uppsala Philosophical Studies, Uppsala, 2011. Preprint *UPPP* 1, 2011. 20 sidor.

7. Knowledge of Languages

English, German, Swedish, and Danish fluently. Reading ability in French.

8. Other Credits

8.1 (1) Linguistic and scholarly scrutiny of the Swedish translation of

A Sen, *Kollektiva beslut och social välfärd*. Thales, Stockholm, 1988. xiii + 246 sidor.

(2) English translation "An Algebraic Logic Calculus" of Stig Kanger's article "En algebraisk logikkalkyl." In

G. Holmström-Hintikka, S. Lindström, and R. Sliwinski (eds.), *Collected Papers of Stig Kanger with Essays on his Life and Work*, Vol. 1. Kluwer, Dordrecht, 2001.

(3) Translations from German to Swedish for The Royal Castle, Stockholm, and for Swedish Institute, Stockholm.

8.2 "Gastwissenschaftler" May-June 1990 at Institut für Philosophie, Technische Hochschule Darmstadt, Darmstadt, Germany. — Three seminars in German on the foundations of quantum theory.

8.3 Seminar at the Department of Philosophy, Umeå University. October 1994:

(1) *The Paradoxes of Implication and the Foundations of Logic*.

Three guest lectures at the University of Tartu, Estonia. November 1994:

(2) *The Paradoxes of Implication and the Foundations of Logic*.

(3) *The EPR Argument and Bell's Theorem*.

(4) *An Inverse of Bell's Theorem*.

Seminar at the University of Tartu, Estonia. November 1994:

(5) *Logic and Philosophy at Uppsala University.*

Seminar at the Department of Mathematics, Luleå University of Technology. May 1995:

(6) *On Bell's Theorem.*

Lecture at the biannual conference *Filosofidagarna* of the Swedish Philosophical Association at Umeå University, Umeå, June 1995:

(7) *Bell, Maxwell and Quantum Mechanics.*

Lecture at an international conference on *Quantum Theory — Mainly from a Bohmian Perspective* at Department of Quantum Chemistry, Uppsala University. December 7, 1995:

(8) *What is Wrong about Jauch-Piron's Theorem?*

Seminar at Department of Mathematics, Luleå University of Technology, May 28, 1996:

(9) *Four Theorems on Quantum Mechanics.*

Seminar at SCAS (Swedish Collegium for Advanced Study), Uppsala. December 12, 1996:

(10) *Philosophy and Physics: Realism and Causality in Quantum Mechanics.*

Seminar at the Department of Mathematics, Luleå University of Technology. March 23, 1998:

(11) *Writing a Textbook of Logic.*

Seminar at the Department of Information Science, Division for Computer and System Science, Uppsala University. October 28, 1998:

(12) *Recursion Without the μ -Operator.*

Lecture (May 13) at *The 1999 Uppsala Spring Festival of Philosophical Logic*, Department of Philosophy, Uppsala University, May 13-14, 1999:

(13) *Kanger's Ideas on Non-Well-Founded Sets.*

Lecture (June 8) at *The Presummer Festival of Philosophical Logic*, Department of Philosophy, Uppsala University, June 8-9, 2000:

(14) *Recursion Without the μ -Operator.*

Seminar at the Department of Philosophy, Australian National University, Canberra, Australia. February 13, 2002:

(15) *The Twin Paradox Without Acceleration.*

Seminar at the Department of Mathematics and Physics, Mälardalen University, Västerås, Sweden. February 5, 2003:

(16) *New Definitions of the Recursive Functions.*

Seminar at the Department of Mathematics and Physics, Mälardalen University, Västerås, Sweden. May 14, 2003:

(17) *König's Lemma and Reverse Mathematics.*

Seminar at the research institute Vinca Institute of Nuclear Sciences, Belgrade, Serbia. June 22, 2005:

(18) *Transformation Theory: A New Theory of Relativity.*

Seminar in philosophy of physics at the Department of Philosophy, Uppsala University, February 1, 2006:

(19) *Rotation in the Special Theory of Relativity.*

Seminar at the Philosophy Unit, Royal Institute of Technology, Stockholm. May 18, 2007:

(20) *A New Theory of Relativity.*

Lecture (June 10) at the biannual conference *Filosofidagarna* arranged by the Swedish Philosophical Association at Umeå University, Umeå, June 8-10, 2007:

(21) *A Variant of the Twin Paradox.*

Seminar at the Department of Information Science, Uppsala University. October 18, 2007:

(22) *Transformation Theory: A New Theory of Relativity.*

Seminar in philosophy of physics at the Department of Philosophy, Uppsala University. October 22, 2007:

(23) *Transformation Theory: The Twin Paradox and Ehrenfest's Paradox.*

"The Centenary Micro-Workshop on Grelling's Paradox" at the Department of Philosophy, Uppsala University, June 18, 2008, with contributions by J. Howard Sobel (Toronto) and Kaj Børge Hansen (Uppsala):

(24) *Speculations on Grelling's Paradox.*

The Logic Seminar Stockholm-Uppsala, Department of Mathematics, Uppsala University. October 1st, 2008:

(25) *From Logical Analysis to Physics: The Case of Special Relativity.*

Seminar at the Academy for Education, Culture, and Communication, Division of Mathematics, Mälardalen University, Västerås. March 11, 2009:

(26) *An Alternative to Einstein's Theory of Relativity.*

Seminar at the Academy for Education, Culture, and Communication, Division of Mathematics, Mälardalen University, Västerås. November 10, 2009:

(27) *Alternative Relativity: Towards a General Theory.*

Seminar in Practical Philosophy at the Department of Philosophy, Uppsala University. September 28, 2012:

(28) *Proof of the Existence of Free Will.*

Seminar in Logic and Philosophy of Science at the Department of Philosophy, Uppsala University. October 11, 2012:

(29) *Logical Analysis of the Dark Energy Hypothesis.*

Between 1974 and 1998, I have given c. 45 seminars and colloquia on a wide variety of issues at the Department of Philosophy, Uppsala University.

8.4 During the spring semester 1998, I organised a workshop at the Department of Philosophy, Uppsala University, under the title *Logic, Probability, and Quantum Theory*. The workshop took place 1998.04.06-1998.04.08. Participants (lecturers) were Henrik Carlsen (Quantum Chemistry, Uppsala), Rachel W. Garden (Cashlink, New Zealand), Kaj Børge Hansen (Philosophy, Uppsala), and Erik Sjöqvist (Quantum Chemistry, Uppsala, and Philosophy, Oxford). I gave the following talks:

(1) *Introduction.*

(2) *EPR, Bell, and Selection Indeterminate Partial Hidden Variables.*

During the national, biannual conference *Filosofidagarna* June 9-11, 2005, at the Department of Philosophy, Uppsala University, I was chairman for the Logic section.

8.5 Lecture for students in the physics program at Uppsala University, autumn semester 1990:

(1) *Philosophical Problems in Quantum Mechanics.*

Lectures for students in the course *Database Technique* at the Department of Information Science, Division of Computer and System Science, Uppsala University, December 10, 2008, May 13, 2009, December 2, 2009, May 4, 2010, November 30, 2010, May 11, 2011, December 5, 2011, and December 13, 2012.

(2) *The Role of Logic in Computer Science.*

8.6 Lecture in the Philosophy Club in Uppsala, March 1990:

(1) *Bell's Paradox in Quantum Mechanics*.

Lecture in the Philosophy Club in Umeå, October 1994:

(2) *Philosophical problems in Quantum Mechanics*.

Lecture in the student association Filosofilerna, Uppsala University, November 4, 1997:

(3) *What is Philosophy?*

8.7 Lectures for philosophy classes and mathematics classes at Uppsala Katedralskola (secondary school) during the spring semesters 1992, 1993, 1994, 1995, 1996, 1999, 2001; 2003, 2005, and 2007.

8.8 *Supervision*

(1) Supervision of bachelor and master theses at the Department of Philosophy, Uppsala University, 1998-.

(2) Assistant supervisor for Adrian Thomasson's "Licentiat"/M.Litt. thesis *Cassirer i Sverige [Cassirer in Sweden]* at the Department of History of Ideas, Uppsala University, 1999-2001.

(3) Pre-examination of the proofs in Gustaf Arrhenius' doctoral dissertation *Future Generations: A Challenge for Moral Philosophy* in Practical Philosophy at Uppsala University, 2000.

(4) Pre-examination of Tor Sandqvist's doctoral dissertation *An Inferentialist Interpretation of Classical Logic* in Theoretical Philosophy at Uppsala University, 2005.

(5) Pre-examination and opposition at the final seminars on Anders Kraal's doctoral dissertation *First-Order Logic and Classical Theism: A Methodological Inquiry* in Philosophy of Religion, Department of Theology, Uppsala University, December 9, 2009, and February 10, 2010.

8.9 Referee tasks for *Journal of Philosophical Logic*, *Foundations of Physics*, *E-CAP 2005 Proceedings [Proceedings of the European Conference on Computing and Philosophy, Västerås, 2005]*, and for the anthology Gordana Dodig-Crnkovic (ed., 2011), *Information and Computation*. Altogether 9 referee tasks.

8.10 Participated in the radio program "Vetandets värld" ("The World of Science") May 18th, 2011. The issue was modern particle physics and cosmology from a philosophical standpoint. The program was edited by Pelle Lindblom.

8.11 Chairman of the Housing Cooperative "Bostadsrättsföreningen Stigberget", Uppsala, from December 1st, 2009, until April 5th, 2011.

Uppsala 2012-11-26

/Kaj B Hansen/