Curriculum vitæ

Personal matters

Name: Lennart Andersson
Date of birth: 1945-10-28
Family: Wife and two children (18 and 15 years old)
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Degrees

- Master of Science in Engineering Physics (civilingenjör, teknisk fysik), Chalmers University of Technology (CTH), 1970.
- Ph.D. in Computer science especially numerical analysis (teknologie doktor i informationsbehandling särskilt numerisk analys), CTH 1976.

Academic experiences

- Teaching assistant (övningsassistent), Department of Mathematics, CTH, 1967/68.
- Teaching assistant (övningsassistent), Department of Theoretical Physics, CTH, 1968/69.
- Teaching assistant (övningsassistent), Department of Computer Science, CTH, 1969/70.
- Research assistant (assistent), Department of Computer Science, CTH, 1970-76.
- Associate professor (universitetslektor) in Computer Science, Luleå University of Technology (Luth), 1976–2000.
- Associate professor (universitetslektor) in Computer Science, Lund University), 2000–.

Scientific publications

- L Andersson: *Intervallanalys (Interval analysis).* Master thesis, CTH 1970.
- O Axelsson, L Andersson: *An iterative method for finite element equations*, Symposium on finite element methods, Brunel University 1975.
- L Andersson: *SSOR Preconditioning of Toeplitz Matrices.* Ph.D. thesis, CTH 1976.
- L Andersson: *SSOR Preconditioning of Toeplitz Matrices*, in Preconditioning methods: Analysis and applications, D.J. Evans (editor), Gordon and Breach Science Publishers, 1983.

Referee assignments

- Referee for the Journal of the institute of mathematics and its applications.
- Book reviews for BIT.
- Book reviews for Elementa.

Other publications

- L Andersson: *Hur en räknedosa beräknar* $\ln x$ *och* $\tan x$ (How a pocket calculator computes $\ln x$ and $\tan x$), Elementa, 1979.

Research supervision

- Supervisor and examinar for Dick Schefström. Licentiate degree with thesis *On data organization in programming environments*, Luth, 1985.
- Supervisor and examinar for Kjell-Håkan Närfelt. Licentiate degree with thesis *Software development environments*, Luth, 1985.
- Opponent ("diskutant") for Olof Johansson's licentiate thesis *A Functional Language for Microcomputers*, Umeå University, 1995.

Teaching experience

As a teaching and research assistant at CTH I have taught problem solving and supervised laboratory work in mathematics, mathematical physics, theoretical physics, numerical analysis and programming. The total time in class was about 700 hours.

As a lecturer I have developed, taught and examined a large number of courses, mainly in computer science, but during the first years also in mathematics and numerical analysis. A complete list would cover two pages. I have been teaching at all levels, from introductory courses to courses for graduate students. I estimate the total time in class to 6000 hours. I have been examiner for about 40 master theses.

I have always been very interested in planning educational programmes and have regularly managed or taken very active part in such work for the D and DI (dataingengör) programmes. At the national meetings for the D programme managers I have almost always been the main representative from Luleå.

Teaching material

Very often I have written supplementary texts for courses. The following list is far from complete in this aspect. I also omit the numerous programming assignments given in many courses. I have encluded some major texts and a sample of minor ones trying to document the breadth rather than the volume of teaching material.

1. L Andersson, A Grennberg, T Hedberg, R Näslund, L E Persson, and B von Sydov: *Linjär algebra med geometri* (Linear Algebra with Geometry). Published by Centek förlag, 1986, and later by Studentlitteratur, 1990.
2. L Andersson: *En matematisk introduktion till FEM* (A Mathematical Introduction to the Finite Element Method). A short introduction for students at the School of Mechanical Engineering, 1978.
3. L Andersson: *Lösning av linjära ekvationssystem* (Solution of systems of linear equations). Compendium for a second course in computer methods and programming, 1979.
4. L Andersson: `Datorhandbok - Unix` (Computer Systems Manual - Unix), revised yearly from 1983.
5. L Andersson: *En liten kompilator eller Modula-0* (A small compiler or Modula-0), 1985. An introduction to compiling and computer architecture used in a first course in imperative programming.

6. L Andersson: *Modules in Standard ML*, 1996.
7. L Andersson: *PSG – En generator för programmeringsomgivningar* (PSG – A generator for programming environments).
8. L Andersson: *Programkonstruktion* (Program Construction), 1997. Main text for a second course in programming emphasizing abstraction, modularization and information hiding. The text is based on previous knowledge in Haskell and an imperative langauage. It uses Haskell and Java as main programming languages and contains an ovierview of C discussing memory management.
9. L Andersson:*Lambda-kalkyl* (Lambda Calculus), 1990. Supplementary reading for courses in theory of computation and semantics of programming languages.

Academic leadership

1. Member of the faculty committee for graduate studies (fakultetens utbildningsnämnd), 1974/75, CTH.
2. Member of the board, Department of Computer Science, CTH.
3. Member of the board, Department of Mechanical Engineering, Luth.
4. Member of the board, Department of Mathematics, Luth.
5. Member of the board, Department of Systems Engineering and Mathematics, Luth.
6. Member of the board, Department of Computer Science and Electrical Engineering, Luth.
7. Member of the appointment committee (tjänstetillsättningsnämnden), Luth.
8. Member of the programme committee for Computer Science and Engineering (beredningsgruppen för Datatekniklinjen och programmeringsteknisk linje).
9. Member of the election committee (valberedning) for the board of undergraduate studies (linjenämnden för teknisk sektor), Luth.
10. Member of the election committee (valberedning) for the faculty board, Luth.
11. Member of the Quality Review Committee for the Swedish M.Sc. Programmes in Computer Science and Enginering, QRC-D, 1993.
12. Head (avdelningschef), Division of Computer Science and Engineering, Luth, 1991-97.
13. Member of the appointments board (tjänsteförslagsnämnden), Luth, 1994-.
14. Deputy head (stf prefekt), Department of Computer Science and Electrical Engineering, Luth, 1997-.

Other administrative experiences

1. In charge of computer systems (datorsystemansvarig), departments of mathematics, system engineering and mathematics, and computer science and engineering, Luth, 1980-98.

International experience

1. Visiting lecturer (utbytestjänst) at the Department of Computer Science, Denmark's Technical University, Lyngby, February-June, 1992.

References

1. Professor Svante Carlsson, Department of Computer Science and Electrical Engineering, Luth. Currently head of department. Phone 0920 91177, email address svante@sm.luth.se.

2. Associate professor Anders Grennberg, Department of Computer Science and Electrical Engineering, Luth. Previously head of department. Phone 0920 91128, email address andersg@sm.luth.se.

3. Professor Per-Ola Börjesson. Currently professor of Signal Processing, University of Lund, previously professor at Luth. Phone 046 222 72 41, email address pob@tde.lth.se.

4. Professor Bertil Svensson. Currently professor of Computer Engineering and vice-dean for undergraduate studies, CTH, previously acting professor at Luth. Phone 031 772 1700, email address svensson@ce.chalmers.se.

5. Mrs Kristina Strandberg. Secretary at the division of Computer Science and Engineering. Phone 0920 91067, email address kristina@sm.luth.se.