

# Curriculum vitae: Claes G L Johnson

born November 18 1943 in Mölndal, Sweden.

## Professional preparation

- Master of Engineering, Chalmers Univ. of Technology, 1969,
- Ph.D. in Mathematics, Chalmers Univ. of Technology, 1973,
- Docent in Numerical Analysis, Chalmers Univ. of Technology 1978.

## Appointments

- Assistent, Mathematics Dept., Chalmers Univ. of Techn. 1969-73,
- Instructor, Mathematics Dept., The University of Chicago 1974-76,
- Assistent Professor, Dept. of Computer Science, Chalmers Univ. 1976-80
- Visiting Prof, Ecole Polytechnique, Paris, April-June 1976
- Visiting Prof Universite Paris VI, April-June 1978
- Professor of Applied Mathematics, Dept. of Mathematics, Chalmers University of Technology 1981- , permanent position
- Visiting Prof Mathematics Dept., Univ. of Michigan 1983-84
- Visiting Prof Ecole Polytechnique, Paris, Oct-Nov 1987
- Visiting Prof Ecole Polytechnique, Paris, Jan-June 1991
- Visting Prof Univ. of Stuttgart, Heidelberg, 12 months 1991-94
- Visiting Prof Univ. of Pavia, Italy, Febr-March 1997
- Visiting Prof CRS4, Sardinia, March-June 1997.
- Visiting Prof, Newton Inst, Cambridge, March-May, 2003.

## Awards:

Albert Wallins pris, Göteborgs Kungl. Vet.- och VitterhetsSamhälle, 1985.  
Humboldt Forschungspreis 1990.

## Research:

100 scientific articles and 6 books on applied mathematics, partial differential equations, finite element methods and numerical analysis.

## Current research contracts:

SSF: Chalmers Finite Element Center (Director)

VR: Multi-scale adaptive methods.

**Teaching experience:**

A variety of courses in mathematics, applied mathematics and numerical analysis from beginning undergraduate to advanced graduate level.

**Books:**

Numerical Solution of Part. Diff. Eq. by the Finite Element Method, Studentlitteratur/Cambridge University Press, 1987.

Computational Diff. Eq. (with Eriksson, Estep and Hansbo), Studentlitteratur/Cambridge University Press, 1996.

Applied Mathematics: Body & Soul Vol I-III, (with Eriksson and Estep), Springer, 2003.

Dreams of Calculus: Perspectives on Mathematics Education, (with Hoffman and Logg), Springer 2004.

Applied Mathematics: Body & Soul Vol IV, Dynamical Systems, (with Logg), Springer, 2005.

Applied Mathematics: Body & Soul Vol V, Computational Fluid Dynamics, (with Hoffman), Springer, 2005.

**Editorial duties:**

Computer Methods in Applied Mechanics and Engineering

Mathematical Models and Methods in Applied Sciences

**Advisor to Ph.D./Lic thesis:** (at Chalmers):

- U. Nävert, A finite element method for convection-diffusion problems, 1982
- S. Waserbrot, Discont. finite element methods for plasticity problems, 1984
- M. Asadzadeh, Num. meth. for neutr. trspt. and Vlasov eq., 1986
- J. Lennblad, Adaptive methods for parabolic problems, 1989.
- A. Szepessy, Convergence of the streamline diff. fem for cons. laws, 1989.
- Robert Sandboge, Adaptive fem for reactive compressible flow, 1997
- Mats Larson, Analysis of adaptive finite element methods, 1997.
- N. Eriksson, A study of transition to turbulence, 1998.
- E. Burman, Finite element methods for reactive two-phase flow, 1998.
- J. Hoffman, Adaptive Computational Methods for Complex Flows, 2002.
- L. Beilina, Adaptive finite element methods for inverse scattering, 2003.
- A. Logg, Automation of Computational Mathematical Modeling, 2004.