

Curriculum vitae - Jørgen Bang-Jensen

June 17, 2008

Personal data:

- Born January 19, 1960 at Odense Denmark.
- Danish citizen.
- Married to Lene Junker Bang-Jensen with whom I have three children, Louise (born 1985), Jonas (born 1988) and Victoria (born 1991).
- Fluent in spoken Danish, English and German.
- Fluent in written Danish and English and some experience in writing German, but not fluently.
- Conversant (but not fluent) in spoken French.
- Home address: Allegade 58, DK-5000 Odense, Denmark. Phone +45 66141765.
- Work address: Department of Mathematics and Computer Science, Odense University, Campusvej 55, DK-5230 Odense, Denmark. Phone +45 65502335. Fax +45 65932691. Email jbj@imada.sdu.dk.

Academic degrees:

- Cand. Scient Degree (the equivalent of the Master Degree) in Graph Theory, Thesis : "Maximum Flows in Networks with generalizations", April 19, 1985.
- Minors in Mathematics, Computer Science and Chemistry.
- Ph.D. in Graph Theory from Odense University, May 1988, thesis : " Path problems and generalized colouring problems for tournaments and other classes of digraphs: characterizations, algorithms and complexity".
- Danish doctoral degree in Natural Sciences, January 2002, thesis: "Digraphs: Theory and Algorithms".

Employments:

- Research fellow at Department of Mathematics & Computer Science, Odense University May 1, 1985 - January 31, 1988.
- Assistant professor at Department of Mathematics & Computer Science, Odense University February 1, 1988 - July 31, 1988.
- Senior research Fellow at Department of Mathematics & Computer Science, Odense University August 1, 1988 - February 28, 1990, July 1, 1991- November 30 1991. (with support from the Danish Research Council from August 1, 1988 - July 31, 1989).
- Assistant professor at Department of Computer Science, University of Copenhagen March 1, 1990 - July 1, 1991.

- Associate professor in Computer Science, Department of Mathematics & Computer Science, University of Southern Denmark, December 1, 1991 – May 31, 2004.
- Professor with special duties in Computer Science, June 1, 2004 – present.

Long term visits (1 month or more):

- Invited professor and visiting professor for periods of up to 6 months at School of Computing Science, Simon Fraser University, Burnaby, B.C., Department of Mathematics and Statistics, University of Victoria, Laboratoire de Recherche en Informatique, Université Paris-Sud, France, Department of Mathematics, Goldsmiths College, IMAG Université Fourier, Grenoble, France and LaBRI, Université Bordeaux 1.

Further research collaborations:

- Collaborations with researchers at (at least) the following universities: Université Bordeaux 1, Université de Montpellier, University of Grenoble, University of Victoria B.C. Canada, Simon Fraser University, Burnaby B.C. Canada, Royal Holloway, University of London, Imperial College London, Queen Mary College University of London, Technische Universität Ilmenau, University of Kiel, Eötvös University Budapest, University of Boulder Colorado, RWTH Aachen, University of Winnipeg Canada, De Paul University Chicago.

Research Leadership experience:

- Leader of the research project: Generalizations of tournaments- orientability and algorithmic aspects, which was carried out in Odense Sept 92-Aug. 93. The project was supported by the Danish National Science Research Council with about 270.000 d.kr for a Post Doc. Position for 1 year. The project has resulted in 5 published papers.
- Leader of the research project: Tournaments and generalizations of tournaments, which was carried out at Odense University in the period Sept 93-Aug 95. The project was supported by the Danish National Science Research Council with about 700.000 d.kr for a Post Doc. Position for 2 years. The project has resulted in 10 published papers.
- Leader of the research project: Graph connectivity problems in combinatorial optimization and extremal graph theory. The project is carried out at Odense University and is supported by the Danish National Science Research Council with about 800.000 d.kr for a Post Doc. Position for 2 years. The project has resulted in 6 published papers.
- Leader of a research project (2006-2009) in collaboration with an industrial partner (Rambøll Informatics) with the goal of finding efficient workforce scheduling algorithms to be used within the danish home-care sector.
- Leader of the departments research group involved in collaboration with industrial partners. The group includes three post docs, one Ph.D student and a number of masters students. We are and have been collaborating with a number of danish companies, including Bang and Olufsen, Cabinplant A/S, Dan-Foam A/S, Danish Technological Institute, DSB S-train, Dynatest Denmark, FKI Logistex, Grundfos, JYSK, LEGO, Novotek Planning systems, Odense University Hospital, Rambøll Informatics, Simcon A/S.
- Participant in the research project "Research activity in discrete mathematics". The project is headed by Professor Carsten Thomassen, DTU, Lyngby and has been supported by the Danish National Science Research Council from 1989 to 2006 with about 300.000 d.kr per year. For the period 2007-2010 the project is supported with approximately 3 million d.kr including three one year postdoc positions all of which will work at University of Southern Denmark under my guidance.

Miscellaneous:

- Co-author of the book "Digraphs: Theory, Algorithms and Applications", Springer Verlag, London (2000) xxii+754pp. The first book ever to treat digraphs in a comprehensive way. The completely revised second version of that book will be published late 2008.

- Author of more than 90 research papers.
- I have written joint papers with more than 35 different researchers (as can be seen from my list of publications).
- I have participated in more than 100 international meetings, or research visits and given lectures at most of these events.
- Plenary speaker or invited speaker at conferences in Braunschweig, Budapest, Copenhagen, Dagstuhl, Ilmenau, Louisville, Montreal, New York, Oberwolfach, Odense, Paris, Prague, Rostock, Strba, Vancouver and Victoria.

Refereeing and grant reviewing:

- I have served as a referee for a large number of international journals I have also been a referee for various conference proceedings.
- Reviewer for CERG the Research Grants Council of Hong Kong.
- Reviewer for Zentralblatt für Mathematik/Mathematical Abstracts from 1990 to 2000.

Supervision and examination:

- External examiner on PhD theses at Aarhus University, Université Paris XI, Orsay, Tel-Aviv University and University of Copenhagen.
- External examiner on a German doctoral thesis (Habilitation Thesis) at Technische Hochschule Aachen.
- External examiner on a Licentiate thesis in Lund.
- Supervisor of 37 masters theses (1 year theses) and currently supervising another 3. These cover a number of theoretical and practical aspects of computer science, among others: Routing of street cleaning machines, Routing in telephone networks, Optimally increasing the edge-connectivity of a network under uniform cost assumptions, Simulated annealing on the traveling salesman problem, Genetic algorithms for steel cutting, Triangulating polygons in linear time, Fast algorithms for maximum cliques and minimum colourings of circular-arc graphs and scheduling teacher parent consultations in high schools, nurse rostering, scheduling an anodizing plant for B&O, planning work for home care personnel, Heuristics for increasing the edge-connectivity of a network with arbitrary costs on new links, rostering for train drivers at DSB S-train, planning work schedules for ticket inspectors at DSB S-train, booking algorithms, scheduling extraction of daily orders in a high bay storage facility, the split delivery problem, timetabling for natural sciences at University of Southern Denmark.
- Supervisor of 3 Ph. D theses and currently supervising 3 Ph. D students a further student is expected to start October 1st, 2008.
- External examiner on 29 master theses.
- External examiner on several courses in Computer Science, Combinatorial optimization, Operations Research and Graph Theory at 4 different universities in Denmark.

Teaching experience:

I have 22 years of university teaching experience plus 5 years as a student instructor. After my university degree, I have taught courses on the following subjects: Abstract data types, Advanced algorithms, Algorithms and complexity, Algorithms and data structures, Computability, Combinatorial Optimization, Directed graphs, Discrete Mathematics for computer science, Flows in Networks, Graph connectivity, Graph Algorithms, Introduction to algorithms,

Matching theory, Matroid theory, Metaheuristics for combinatorial optimization, Parallel algorithms, Submodular flows, Topics in graph theory, Topics on algorithms, Introduction to Linux and Latex, Networks and Integer programming, Introduction to linear and integer programming.

Conference organization:

- Co-organizer of The Petersen Graph Theory conference at Hindsø July 1-6 1990.
- Organizer or co-organizer of several mini-size (about 30 participants) international graph theory meetings in Denmark from 1992 to 2000.
- Organizer (with Bjarne Toft) of the conferences Graph theory 2002 at Odense Congress center, August 19-23, 2002, Graph theory 2003 at Hotel Storebælt, November 27-30, 2003, Graph Theory 2005 at Hotel Storebælt, December 1-4, 2005 and Graph theory 2007 at Trinity, December 6-9, 2007
- Co-organizer of Graph theory at Sandbjerg Castle, August 17-23, 2008.
- Member of the local organizing committee for ISMP 2003, the international symposium on Mathematical Programming, August 18-22 2003 in Lyngby.

Administrative experience:

- Member of the department board in several periods.
- Member of the study board for natural science, representing mathematics and computer science from 2002 to 2005. Before that I was a member the study board for data technology for several years.
- Member of the committee for mathematics education in Denmark, representing the interests of computer science from 2000-2005.

Further information can be obtained at the URL <http://www.imada.sdu.dk/~jbj/>