Bjarne Stroustrup

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Education

Ph.D. in Computer Science, University of Cambridge, England, 1979

Ph.D. Thesis: Communication and Control in Distributed Computer Systems

Thesis advisor: David Wheeler

Cand. Scient. in Mathematics with Computer Science, Aarhus University, Denmark, 1975

Thesis advisor: Brian H. Mayoh

Research Interests

Distributed Systems, Design, Programming techniques, Software development tools, and Programming Languages

Professional Experience

Technical Fellow, Morgan Stanley, New York, January 2019 – present

Managing Director, Division of Technology and Data, Morgan Stanley, New York, January 2014 – present

Visiting Professor, Columbia University, New York, January 2014 – present

Visiting Professor in the Computer Lab and Fellow of Churchill College, Cambridge University, Spring 2012

Visiting Professor in the Computer Science Department, Princeton University, Fall 2011

The College of Engineering Chair Professor in Computer Science, Department of Computer Science, Texas A&M University, October 2002 – January 2014

Department Head, AT&T Laboratories – Research, Florham Park, New Jersey, July 1995 – October 2002

Distinguished Member of Technical Staff, AT&T Bell Laboratories, Murray Hill, NJ, June 1987 – July 1995

Member of Technical Staff, AT&T Bell Laboratories, Murray Hill, NJ, March 1979 – June 1987

Honors & Awards

2019: Honorary doctor of University Carlos III in Madrid, Spain.

2018: The John Scott Legacy Medal and Premium from The Franklin Institute and the City Council of Philadelphia to men and women whose inventions improved the comfort, welfare, and happiness of human kind in a significant way.

2018: The Computer Pioneer Award from The IEEE Computer Society *For bringing object-oriented programming and generic programming to the mainstream with his design and implementation of the C++ programming language*.

2018: The Charles Stark Draper Prize from the US National Academy of Engineering. *For conceptualizing and developing the C++ programming language*.

2017: The Faraday Medal from the Institute of Engineering Technology. For significant contributions to the history of computing, in particular pioneering the C++ programming language.

2017: Honorary Fellow of Churchill College, University of Cambridge.

2015: Fellow of the Computer History Museum. For his invention of the C++ programming language.

2015: The Dahl-Nygaard senior prize from The European Organization for Object-Oriented Technologies. *For the design, implementation, and evolution of the C++ programming language*.

2013: Electronic Design Hall of Fame.

2013: Honorary Doctor of Computer Science from the National Research University, ITMO, St. Petersburg, Russia.

2013: The Golden Abacus Award from Upsilon Pi Epsilon.

2011: University Distinguished Professor at Texas A&M University (honorable title, bestowed "in perpetuity"").

2010: Honorary Professor in Object Oriented Programming Languages, Department of Computer Science, University of Aarhus.

2010: The University of Aarhus's Rigmor og Carl Holst-Knudsens Videnskapspris. The university's oldest and most prestigious honor for contributions to science by a person associated with the university.

2008: Dr. Dobb's Excellence in Programming award. For advancing the craft of computer programming.

2005: The William Procter Prize for Scientific Achievement from Sigma Xi (the scientific research society). *Presented to a scientist who has made an outstanding contribution to scientific research and has demonstrated an ability to communicate this research to scientists in other disciplines*.

2005: IEEE Fellow.

2004: Member of the Texas Academy of Medicine, Engineering, and Science.

2004: Member of the US National Academy of Engineering

2004: IEEE Computer Society's Computer Entrepreneur Award. For pioneering the development and commercialization of industrial-strength, object-oriented programming technologies, and the profound changes they fostered in business and industry.

2002: Honorary Professor at Xi'an Jiao Tong University.

1996: AT&T Fellow

1996: ACM Fellow

1995: Named one of "the 20 most influential people in the computer industry in the last 20 years," *BYTE* magazine

1993: AT&T Bell Laboratories Fellow

1993: ACM Grace Murray Hopper award for his early work on C++

1990: Named one of "America's twelve top young scientists," by Fortune Magazine

Selected Invited Presentations

- C++Con 2019 keynote: C++20: C++ at 40.
- The Strachey Lecture, University of Oxford: *The Continuing Evolution of C++*. 2017.
- Qcon Shanghai 2017 keynote: *The future of programming and C++'s role in that.*
- CppCon 2017 keynote: *Learning and Teaching Modern C++*.
- Meeting C++ 2016 keynote: What C++ is and what it will become.
- TEDx Shanghai: *The Driving Force Behind C++*. 2016.
- CppCon 2105 keynote: Writing Good C++14. Bellevue, Washington.
- ECOOP 2015 keynote: *Object-Oriented Programming without Inheritance*. Prague, Czech Republic.
- Bombay IIT Techfest 2015 keynote: C++ Style A Touch of Class. Mumbai, India.
- Lang.Next 2014: What if anything have we learned from C++? San Francisco, California.
- University of Cambridge Computer Laboratory's 75th anniversary: C++11 Style A Touch of Class. 2012
- ETAPS 2012: Foundations of C++. Tallinn, Estonia.
- ACM Sigplan History of Programming Languages (HOPL-III) Invited presentation: *Evolving a language in and for the real world: C++ 1991-2006*. San Diego, California. 2007
- PACT'07 keynote: Write Clean (Parallel) Code. Brasov, Romania.
- Cambridge University 800th anniversary: *Evolving a language in and for the real world.* 2009.
- The First International Conference on Embedded Software and System, keynote: *Abstraction and the C++ machine model*. Zhejiang University, China. 2004
- LLNL; ASCI ITS Lecture: Programming, Language, and Libraries. 2004
- INRIA and Universite de Provence, Colloquium J. Morgenstern: "Do General-purpose Languages Have a Future? 2003
- American Institute of Physics ACAT 2000; Keynote: Speaking C++ as a Native, 2001
- Software Development 2000; Keynote: A New Language for a New Millennium, 2000
- Embedded Systems Conference; Keynote: C++ for Embedded Systems Programming, 1999
- Free University, Amsterdam; CWI Soiree: What is an Object and What Isn't? 1999

- University of Illinois; Gillies Lecture: Programming Languages Why should we care? 1996
- OOPSLA'95 Keynote: Why C++ Isn't Just an Object-Oriented Programming Language, 1995
- ACM Sigplan History of Programming Languages (HOPL-II) Invited presentation: *A History of C+: 1979-1991*. Cambridge, Massachusetts. 1993.
- Yale University, Alan J. Perlis Lecture: *Computer Languages and Their Future Object-Oriented Programming and C++*, 1993.
- ECOOP'87 Keynote: What is Object-Oriented Programming? 1987.

Professional Service & Activities

ISO C++ Standards Committee Member, working group chair. Representing AT&T, TAMU, and Morgan Stanley, representing the USA at the ISO level, 1990 – present

Program Committee Member: USENIX COOTS 2001, ACM SIGPLAN OOPSLA 1988, 1989, 1990 ECCOPS 1987

Member of the Danish Research Academy Advisory Board, 1995 – 1997

Selected Interviews

- <u>A conversation with Bjarne Stroustrup</u>. An interview of Bjarne by Lex Fridman from MIT. July 2019.
- <u>Interview 40 years of C++</u> by David Silver from Udacity. April 2019.
- An interview with iTuring: <u>Bjarne Stroustrup</u>: A simple way of expressing an idea can be optimal in real-world situations. <u>Chinese version</u>. November 2016.
- By Aurelien Regat-Barrel: <u>Celebrate the 30th anniversary of TC++PL and the first commercial</u> release of C++ October 2015.
- Paul McJones for the Computer History Museum's Oral history project: *Bjarne Stroustrup oral history: 2015 fellow*. http://www.computerhistory.org/collections/catalog/102740024. February 2015.
- An interview for the communication of the CCF (China Computer Federation) <u>In Chinese</u> and the <u>English original</u>. November 2014.
- Richard Morris for Simple Talk: Bjarne Stroustrup, and Programmers With Class. August 2014.
- <u>An interview by William Wong</u> for Electronic Design Magazine: *about C++ and its development*. 2014
- Video interview with Charles Severance for <u>IEEE Computer</u> about my IEEE Computer Magazine paper Software Development for Infrastructure.
- Interview with <u>Debasish Jana</u> for <u>The Computer Society of India</u>:
 - o Part 1: Paradigm & Prilosophy, June 2011.
 - o Part 2: Evolution of C++ towards C++0x, July 2011.
 - o Part 3: C++0x Technicalities and Intricacies, August 2011.
- Interview with Lukasz Lopuszanski for <u>The Software Developer's Journal</u>: <u>About C++ and... few more things</u>. <u>Version</u> where the typesetters haven't introduced bugs. March 2011.
- Interview by Michael Calore for Wired Magazine: Oct. 14, 1985: C++ Adds to Programming celebrating C++'s 25th anniversary as a commercial language. Persian translation by Saeed Amrollahi Boyouki.
- Interview for 3DNEWS: <u>Bjarne Stroustrup</u>: <u>physicist and lyricist</u> (in Russian). Here are <u>The English bits</u>. October 2010.

- Bjarne Stroustrup: C++. Chapter in Federico Biancuzzi and Shane Warden: C++ in "Masterminds of Programming -- conversations with the creators of major programming languages". O'Reilly. ISBN 978-0-596-51517-1. March 2009. (Winner of a Jolt award).
- A "geek of the week" interview on <u>quality of software</u>, <u>education</u>, <u>and C++</u> for Simple-talk by Richard Morris. December 2008.
- An interview on C++0x, the education of programmers, and more for Dr. Dobb's Magazine by James Buchanan. February 2008.
- An <u>interview</u> focused on innovation, and a <u>follow up</u> by Roberto Zicari for <u>ODBMS.org</u>. November 2007.
- An interview for MIT Technical Review by <u>Jason Pontin</u>: <u>Trouble with programming</u> and <u>More trouble with programming</u>. This is a nicely edited version of my somewhat longer and more detailed original text. December 2006.
- Article by Pierre Vandeginste based on interview for INRIA: <u>Bjarne Stroustrup</u>: le père de C++, <u>un langage qui a de la classe</u>. June 2004 (in French)
- Bill Venners for Artima.com: <u>The C++ Style Sweet Spot</u>, <u>Modern C++ Style</u>, <u>Abstraction and Efficiency</u>, and <u>Elegance and other design ideals</u>. September 2003 February 2004.
- <u>Interview by Quinn Tyler Jackson for the Pi Society</u>. November 2000.
- <u>Interview of Dennis Ritchie</u>, <u>Bjarne Stroustrup</u>, and <u>James Gosling by Herb Sutter</u> for the Java Report, 5(7), and the C++ Report, 12(7). July/August 2000.
- S. Hamilton: <u>The Real Stroustrup Interview</u>. IEEE Computer Magazine, June 1998. Posted with permission from IEEE. (pdf version).
- <u>Interview by Andrew P. Madden</u> from Red Herring magazine, June 1998.
- Interview by Chuck Allison from the C/C++ Journal, 1996.
- <u>Interview by Judy Tolliver</u> for a University of Illinois CS department alumni magazine from March 1996.

For a more comprehensive list, see http://www.stroustrup.com/interviews.html

Publications (lightly annotated)

- 1. B. Stroustrup: Thriving in a crowded and changing world: C++ 2006-2020. ACM SIGPLAN History of Programming Languages conference. To appear June 2020.
- 2. Bjarne Stroustrup: <u>A Tour of C++ (second edition)</u>. Addison Wesley. ISBN 978-0-13-499783-4. July 2018.
- 3. B. Stroustrup: <u>Concepts: The Future of Generic Programming (or "How to design good concepts and use them well)"</u>. Isocpp.org. January 2017.
- 4. B. Stroustrup, H. Sutter, and G. Dos Reis: A brief introduction to C++'s model for type- and resource-safety. Isocpp.org. October 2015. Eliminating dangling pointers, memory corruption, and resource leaks without overheads.
- 5. J. Daniel Garcia and B. Stroustrup: <u>Improving performance and maintainability through</u> refactoring in C++11. Isocpp.org. August 2015. An example of slightly improving performance of a parallel application by simplifying and increasing the level of abstraction.
- 6. B. Stroustrup: Five popular myths about C++ French translation. ISOcpp.org. December 2014.
- 7. B. Stroustrup: Programming -- Principles and Practice Using C++ (Second Edition). May 2014. Addison-Wesley. ISBN 978-0321992789. PPP2 got a rare Jolt Productivity Award. from Dr. Dobs. Russian translation in progress. Williams Publishing.
- 8. Yuriy Solodkyy, Gabriel Dos Reis and Bjarne Stroustrup: <u>Open Pattern Matching for C++</u>. ACM GPCE'13. A general and efficient portable pattern-matching library.
- 9. Bjarne Stroustrup: <u>A Tour of C++</u>. Addison Wesley. ISBN 978-0321958310. September 2013. Italian translation. Pearson Italia. ISBN 9799965-184493. 2014. German translation. Hanser

- Fachbuch. 9783446-439627. 2015. Chinese translation (simplified). China Machine Press. ISBN 9-787111-498124. 2015.
- Bjarne Stroustrup: <u>The C++ Programming Language (4th Edition)</u>. Addison-Wesley. ISBN 978-0321563842. May 2013. <u>German Translation</u>. Hanser Fachbuch. 2015. ISBN 978-3-446-43981-8. Japanese Translation. SB Creative. 2015.
- 11. Y. Solodkyy, G. Dos Reis, and B. Stroustrup: <u>Open and Efficient Type Switch for C++</u>. Proc. OOPSLA'12. Non-member virtual functions and functions with multiple dynamic arguments.
- 12. A. Kumar, A. Sutton, and B Stroustrup: <u>Rejuvenating Macros as C++11 Declarations</u>. Proc. 28th IEEE International Conference on Software Maintenance. September 2012. A tool for removing macros.
- 13. Bjarne Stroustrup: <u>Foundations of C++</u>. Proc. 22nd European Symposium on Programming (ESOP). Springer LNCS 7211. April 2012.
- 14. Bjarne Stroustrup: <u>Software Development for Infrastructure</u>. Computer, vol. 45, no. 1, pp. 47-58, Jan. 2012, doi:10.1109/MC.2011.353. <u>A video interview</u> about that paper and <u>video of a talk</u> on a very similar topic (That's a 90 minute talk incl. Q&A).
- 15. Gabriel Dos Reis and Bjarne Stroustrup: <u>A Principled, Complete, and Efficient Representation of C++</u>. Journal of Mathematics in Computer Science Volume 5, Issue 3 (2011), Page 335-356 doi:10.1007/s11786-011-0094-1. Special issue on Polynomial System Solving, System and Control, and Software Science.
- 16. Andrew Sutton and Bjarne Stroustrup: <u>Design of Concept Libraries for C++</u>. Proc. SLE 2011 (International Conference on Software Language Engineering). July 2011. What makes good concepts (constraints on template arguments)?
- 17. Peter Pirkelbauer, Damian Dechev, and Bjarne Stroustrup: <u>Support for the Evolution of C++</u> <u>Generic Functions</u>. 3rd International Conference on Software language Engineering. October 2010. Inferring concepts from generic code.
- 18. Damian Dechev, Peter Pirkelbauer, and Bjarne Stroustrup: <u>Understanding and Effectively Preventing the ABA Problem in Descriptor-based Lock-free Designs</u>. 13th IEEE Computer Society ISORC 2010 Symposium. May 2010.
- 19. Gabriel Dos Reis and Bjarne Stroustrup: <u>General Constant Expressions for System Programming Languages</u>. SAC-2010. The 25th ACM Symposium On Applied Computing. March 2010. The paper that introduce compile-time evaluation of functions in C++.
- 20. Peter Pierkelbauer, Damian Dechev, and Bjarne Stroustrup: <u>Source Code Rejuvenation is not Refactoring</u>. SofSem 2010. 36th international conference on current trends in theory and practice of Computer Science. January 2010.
- 21. Bjarne Stroustrup: What should we teach software developers? Why? CACM. January 2010. Japanese translation by Kazutoshi Satoda. Spanish translation by Eduardo Diaz. Chinese translation.
- 22. Gabriel Dos Reis, and Bjarne Stroustrup: A Principled, Complete, and Efficient Representation of C++. Proc. Joint Conference of ASCM 2009 and MACIS 2009. COE Lecture Note Vol. 22, pp. 407-421; December 2009. The smallest and fasted representation of complete C++ source code as typed ASTs.
- Dan Tsafrir, Robert W. Wisniewski, David F. Bacon, and Bjarne Stroustrup: <u>Minimizing</u>
 <u>Dependencies within Generic Classes for Faster and Smaller Programs</u>. ACM OOPSLA'09.
 October 2009.
- 24. Damian Dechev and Bjarne Stroustrup: <u>Scalable Non-blocking Concurrent Objects for Mission Critical Code</u>. ACM OOPSLA'09. October 2009.
- 25. Bjarne Stroustrup: What is C++0x?. CVu. Vol 21, Issues 4 and 5. 2009.
- 26. Bjarne Stroustrup: The C++0x "Remove Concepts" Decision. Dr.Dobb's Journal. July 2009. Republished with permission in Overload Journal, Vol 92. August 2009.

- 27. Damian Dechev and Bjarne Stroustrup: <u>Reliable and Efficient Concurrent Synchronization for Embedded Real-Time Software</u>. Proc. 3rd IEEE International Conference on Space Mission Challenges for Information Technology (IEEE SMC-IT). July 2009.
- 28. Peter Pirkelbauer, Yuriy Solodkyy, Bjarne Stroustrup: <u>Design and Evaluation of C++ Open Multi-Methods</u>. In Science of Computer Programming (2009). Elsevier Journal. June 2009. doi:10.1016/j.scico.2009.06.002.
- 29. Peter Pirkelbauer, Sean Parent, Mat Marcus, Bjarne Stroustrup: *Dynamic Algorithm Selection for Runtime Concepts*. In Science of Computer Programming (2009). Elsevier Journal. June 2009. doi:10.1016/j.scico.2009.04.002.
- 30. Sean Parent and Bjarne Stroustrup: Appendix B: Programming Language. In Alexander Stepanov and Paul McJones: <u>Elements of programming</u>. Addison-Wesley. ISBN 978-0321635372. June 2009.
- 31. Bjarne Stroustrup: Programming in an undergraduate CS curriculum. WCCCE'09. May 2009.
- 32. Damian Dechev, Nicolas Rouquette, Peter Pirkelbauer, and Bjarne Stroustrup: Programming and Validation Techniques for Reliable Goal-driven Autonomic Software. Book Chapter in Autonomic Communication, Vasilakos, A.; Parashar, M.; Karnouskos, S.; Pedrycz, W. (Eds.), ISBN: 978-0-387-09752-7, Springer. May 2009.
- 33. Damian Dechev, Peter Pirkelbauer, Nicolas Rouquette, and Bjarne Stroustrup: <u>Semantically Enhanced Containers for Concurrent Real-Time Systems</u>. Proc. 16th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems (IEEE ECBS). April 2009.
- 34. Damian Dechev and Bjarne Stroustrup: <u>Model-Based Product-Oriented Certification</u>. Proc. of 16th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems (IEEE ECBS). April 2009.
- 35. Bjarne Stroustrup: Programming Principles and Practice Using C++. Addison-Wesley. ISBN 978-0321543721. December 2008. Support site for educators. Polish translation. Helion.pl . 2010. ISBN 978-83-246-2233-7. German translation. Pearson Studium. 2010. ISBN 978-3-86894-005-3. Chinese translation: China Machine Press. 2010. ISBN: 9787111303220. Chinese edition in English: China Machine Press 2010. ISBN 978-7-111-28248-8. French translation. Pearson Educational France. 2010. ISBN 978-2-7440-7442-4. Russian translation. Williams Publishing. 2010. ISBN 978-5-8459-1621-1. Korean translation. Pearson Education Korea Ltd and Dae Woong Publishing Co. 2010. ISBN 978-8-98604-480-5. Japanese translation. Shoeisha Company Ltd. 2011. ISBN 978-4798119595. Portugese translation. Bookman Publishing. 2012. ISBN 987-85-7780-958-5. Chinese translation (tradiditional). GrandTech Information Co. 2012. ISBN 978-986-2571-85-9. Kazakh translation. 2013. ISBN 978-601-217-406-9. Greek translation under way.
- 36. Damian Dechev, Rabi Mahapatra, and Bjarne Stroustrup: <u>Practical and Verifiable C++</u> <u>Dynamic Cast for Hard Real-Time Systems</u>. Journal of Computing Science and Engineering (JCSE), Vol. 2, No. 4, Special Issue on Real-Time Distributed Computing and Ubiquitous Computing in Memory of Professor Moon Hae Kim. December 2008.
- 37. Damian Dechev, Nicolas Rouquette, Peter Pirkelbauer, and Bjarne Stroustrup: <u>Verification and Semantic Parallelization of Goal-driven Autonomous Software</u>. Proc. ACM Autonomics 2008. September 2008.
- 38. Damian Dechev, Rabi Maharapatra, Bjarne Stroustrup, and David Wagner: <u>C++ dynamic cast</u> in autonomous space systems. IEEE ISORC 2008. May 2008.
- 39. Howard E. Hinnant, Bjarne Stroustrup, and Bronek Kozicki: <u>A Brief Introduction to Rvalue</u> References The C++ Source (a web publication). March 10, 2008.
- 40. Peter Pirkelbauer, Sean Parent, Mat Marcus, and Bjarne Stroustrup: <u>Runtime Concepts for the C++ Standard Template Library</u>. Proc. SAC'08, March 2008.

- 41. Peter Pirkelbauer, Yuriy Solodkyy, and Bjarne Stroustrup: Open Multi-Methods for C++. Proc. ACM 6th International Conference on Generative Programming and Component Engineering (GPCE). October 2007.
- 42. Steve Cook, Scott Pike, and Bjarne Stroustrup: "An Early-Reply Based Framework: Reliable Concurrency that Is Verifiable". IEEE HASE'07. November 2007.
- 43. Luke Wagner, Jaakko Jarvi, and Bjarne Stroustrup: <u>Using ownership types to support aliasing boundaries</u>. IWACO'07 (ECOOP workshop: International Workshop on Aliasing, Confinement and Ownership in object-oriented programming). July 2007.
- 44. Bjarne Stroustrup: Evolving a language in and for the real world: C++ 1991-2006. ACM HOPL-III. June 2007. (incl. slides and videos).
- 45. Damian Detchef, Peter Pierkelbauer, and Bjarne Stroustrup: <u>Lock-free dynamically resizable arrays</u>. Proc OPODIS'06. December 2006.
- 46. Douglas Gregor, Jaakko Jarvi, Jeremy Siek, Bjarne Stroustrup, Gabriel Dos Reis, Andrew Lumsdaine: <u>Concepts: Linguistic Support for Generic Programming in C++</u>. OOPSLA'06, October 2006.
- 47. Gabriel Dos Reis and Bjarne Stroustrup: Specifying C++ Concepts. POPL06. January 2006.
- 48. Bjarne Stroustrup: A brief look at C++0x. "Modern C++ design and programming" conference. Shanghai, November 2005. Also Artima, January 2006.
- 49. Bjarne Stroustrup and Gabriel Dos Reis: <u>Supporting SELL for High-Performance Computing</u>. LCPC05. October 2005.
- 50. Bjarne Stroustrup: <u>A rationale for semantically enhanced library languages</u>. LCSD05. October 2005.
- 51. Michael Gibbs and Bjarne Stroustrup: <u>Fast Dynamic Casting</u>. Software Practice & Experience. Vol 35, Issue 12, 2005. Short constant time dynamic type determination.
- 52. B. Stroustrup: The design of C++0x. C/C++ Users Journal. May 2005.
- 53. B. Stroustrup: <u>C++ in 2005</u>. Extended foreword to Japanese translation of "The Design and Evolution of C++". January 2005.
- 54. B. Stroustrup: Abstraction and the C++ machine model. Proc. ICESS'04. December 2004. Also in Springer LNCS 3605. Embedded software and systems. 2005.
- 55. Matt Austern, Bjarne Stroustrup, Mikkel Thorup, and John Wilkinson: *Untangling the Balancing and Searching of Balanced Binary Search Trees. Software Practice & Experience.* Vol. 33, Issue13, October 2003.
- 56. B. Stroustrup: *Serving the C++ Community*. Foreword to the published version of the C++ Standard (ISO/IEC 14882:2002). Wiley 2003. ISBN 0 470 84674-7.
- 57. B. Stroustrup: *Abstraction, libraries, and efficiency in C++. Dr. Dobb's Journal China.* Vol. 1, no 1. August 2003.
- 58. B. Stroustrup: *C and C++: Case Studies in Compatibility. The C/C++ Users Journal.* September 2002.
- 59. B. Stroustrup: C and C++: A Case for Compatibility. The C/C++ Users Journal. August 2002.
- 60. B. Stroustrup: C and C++: Siblings. The C/C++ Users Journal. July 2002.
- 61. B. Stroustrup: *Sibling rivalry: C and C++*. AT&T Labs Research Technical Report. TD-54MQZY. January 2002.
- 62. B. Stroustrup: C++ Programming Styles and Libraries. InformIt.com. January 2002.
- 63. B. Stroustrup, A. Koenig, and B. Moo: The C++ Programming Language. Encyclopedia of Software Engineering. Second edition. Wiley. 2001.
- 64. B. Stroustrup: Speaking C++ as a Native. Proc. ACAT 2000. Also in "Advanced Computing and Analysis Techniques in Physics Research", editors: P. C. Bhat and M. Kasemann. American Institute of Physics. AIP Conference Proceedings Volume 583. ISBN 0-7354-0023-7. August 2001
- 65. B. Stroustrup: Programming with Exceptions. InformIt.com. April 2001.

- 66. B. Stroustrup: Exception Safety: Concepts and Techniques. In "Advances in Exception Handling Techniques", editors: Christopher Dony, Joergen Lindskov Knudsen, Alexander Romanovsky, and Anand Tripathi. Springer Verlag Lecture Notes in Computer Science, LNCS-2022. ISSN 0302-9743. ISBN 3-540-41952-7. April 2001.
- 67. B. Stroustrup and Tim Lindholm: *The Future of OOP. The Future of Software Magazine*. Winter 2000/2001, Vol. 1, no. 1.
- 68. B. Stroustrup: *C++: A Brief History*. Encyclopedia of Computer Science, 4th ed. (Anthony Ralston, Edwin D. Reilly, David Hemmendinger, editors) Grove's Dictionaries Inc. New York. 2000.
- 69. B. Stroustrup: *The C++ Programming Language (Special Edition)*. Addison Wesley. Reading Mass. USA. February 2000.
- 70. B. Stroustrup: *Getting from the past to the future*. The C++ Report. pp 22-23. Vol. 11/No 10. November-December 1999.
- 71. B. Stroustrup: *Learning Standard C++ as a New Language. C/C++ Users Journal.* pp 43-54. May 1999.
- 72. B. Stroustrup: Why no single programming language can solve every need. Red Herring Magazine. April 1999.
- 73. B. Stroustrup: *An Overview of the C++ Programming Language*. Handbook of Object Technology (Editor: Saba Zamir). CRC Press LLC, Boca Raton, Florida. 1999.
- 74. B. Stroustrup: *A History of C++*. In "The Handbook of Programming Languages" (Editor: Peter Salus). Macmillan Technical Publishing. Indianapolis. 1998.
- 75. B Stroustrup: Standard C++ for Embedded Systems Programming. Embedded Systems Development. March 1998.
- 76. B Stroustrup: Generalizing Overloading for C++2000. Overload, Issue 25. April 1, 1998.
- 77. B. Stroustrup: *The C++ Programming Language (3rd Edition)*. Addison-Wesley Longman. Reading Mass. USA. 1997.
- 78. Peter Trott: *Programming Languages: Past Present, and Future* (sixteen prominent computer scientists assess our field). *ACM Sigplan Notices*. Vol. 32, No 1. January 1997.
- 79. B. Stroustrup: *A perspective on Concurrency and C++*. In Wilson & Lu (Editors): Parallel Programming using C++. The MIT Press. 1996.
- 80. B. Stroustrup: *Language-technical Aspects of Reuse*. Proc. 4th International Conference on Software Reuse, pp 11-19. April 1996.
- 81. B. Stroustrup: *A Brief Look at C++*. *IEEE AI Expert*, Intelligent Systems and their Applications, pp 13-15. February 1996.
- 82. R. Koenig and B. Stroustrup: *Foundations for Native C++ Styles. Software Practice and Experience*. Vol. 25, special issue S4. December 1995.
- 83. Stroustrup: *A Perspective on ISO C++*. The C++ Report. Vol. 7/No 8, pp 22-28. October 1995. Also in "C++ Gems" (editor: Stan Lippman) *SIGS Publications*, 1996.
- 84. Stroustrup: *Why C++ isn't just an Object-Oriented Programming Language*. Addendum to OOPSLA'95 Proceedings. *OOPS Messenger*, Vol. 6 no 4, pp 1-13. October 1995.
- 85. B. Stroustrup: *Making a vector fit for a Standard*. The C++ Report. October 1994.
- 86. B. Stroustrup: *The Design and Evolution of C++*. Addison Wesley, March 1994.
- 87. B. Stroustrup, A. Koenig, and B. Moo: *The C++ Programming Language*. Encyclopedia of Software Engineering, Wiley, February 1994.
- 88. B. Stroustrup: *The Simula Programming Language*. Encyclopedia of Software Engineering, Wiley, February 1994.
- 89. B. Stroustrup: *On Learning C++*. Martin Heller: Advanced Win32 Programming, Wiley, July 1993
- 90. B. Stroustrup: *Why Consider Language Extensions?* Proc. European C++ Users' Group Meeting, Munich. July 1993.
- 91. B. Stroustrup: Library Design Using C++. The C++ Report. Vol. 5 no 5, pp 14-22. June 1993.

- 92. B. Stroustrup: *A History of C++: 1979-1991*. Proc ACM History of Programming Languages conference (HOPL-2). *ACM Sigplan Notices*. Vol. 28 No 3, pp 271-298. March 1993.
- 93. B. Stroustrup: *We're not in Kansas Anymore*. The C++ Report "Moving from C to C++" supplement. *SIGS Publications*. August 1992.
- 94. B. Stroustrup: *Tracing the roots of C++*. Silver Anniversary Supplement. *SIGS Publications*. August 1992.
- 95. B. Stroustrup D. Lenkov: *Run-Time Type Identification for C++ (Revised)*. Proceeding of the USENIX C++ Conference. August 1992.
- 96. B. Stroustrup, Et. al.: *How to Write a C++ Language Extension Proposal*. The C++ Report, pp 40-47. May 1992.
- 97. B. Stroustrup: *Overloading of C++ Whitespace*. *Journal of Object-Oriented Programming*. April 1, 1992.
- 98. B. Stroustrup: *C++ 3.0, Standardisering, og andet godt. PC World* (Danmark). March 1992 (in Danish).
- 99. B. Stroustrup and D. Lenkov: *Run-Time Type Identification for C++*. The C++ Report, Vol 4 No 3, pp 32-42. March/April 1992.
- 100. B. Stroustrup: *The C++ Programming Language (2nd Edition)*. Addison Wesley, June 1991.
- 101. B. Stroustrup: *What is Object-Oriented Programming?* (1991 revised version). Proc. 1st European Software Festival. February, 1991.
- 102. B. Stroustrup: *Sixteen Ways to Stack a Cat*. The C++ Report. Oct 1990. (a somewhat odd paper provided by popular demand).
- 103. M. A. Ellis and B. Stroustrup: *The Annotated C++ Reference Manual*. Addison Wesley, May 1990.
- 104. R. Koenig and B. Stroustrup: *Exception Handling for C++ (revised)*. Proc USENIX C++ Conference. April 1990.
- 105. Stroustrup: *On Language Wars. Hotline on Object-Oriented Technology*. Vol. 1, No 3. January 1990.
- 106. R. Koenig and B. Stroustrup: *Exception Handling for C++*. Proceedings of "C++ at Work" Conference, November 1989.
- 107. Stroustrup: *C++ er blevet voksen: Version 2.0. PC World* (Danmark). Nr. 13 November 1989 pp 24-28 (in Danish).
- 108. R. Koenig and B. Stroustrup: *As Close as Possible to C but no Closer*. The C++ Report. Vol. 1 No 7 July 1989.
- 109. K. Simonsen and B. Stroustrup: *A European Representation for ISO C*. EUUG Newsletter. Vol. 9 No. 2, Summer 1989, pp 15-18.
- 110. Stroustrup: *Standardizing C++*. The C++ Report. Vol. 1 No. 1 January 1989.
- 111. Stroustrup: *The Evolution of C++: 1985-1989. USENIX Computing Systems*, Vol. 2, No. 3, pp 191-250, Summer 1989.
- 112. B. Stroustrup: *The C++ Reference Manual*. AT&T C++ Translator Release Notes. June 1989.
- 113. B. Stroustrup and S. Lippman: *Pointers to Class Members in C++*. Proc. USENIX C++ Conference, Denver, pp 305-326, October 1988.
- 114. B. Stroustrup: *Type-Safe Linkage for C++*. Proceedings of the USENIX C++ Conference, Denver, pp 193-210. October 1988.
- 115. B. Stroustrup: *Parameterized Types for C++*. Proceedings of the USENIX C++ Conference, Denver, pp 1-18. October 1988.
- 116. B. Stroustrup: *Programspraaket C*++. Indistriell Datateknik, pp 28-33. August 1988. (in Swedish).
- 117. B. Stroustrup: A Better C? BYTE Magazine, pp 215-218. August 1988.
- 118. B. Stroustrup: Design Issues in C++. ACM Sigplan Notices, pp 33-37. January 1988.

- 119. B. Stroustrup and J. E. Shopiro: *A Set of Classes for Co-routine Style Programming*. Proceedings of the USENIX C++ Workshop, November 1987.
- 120. B. Stroustrup: *The Evolution of C++: 1985-1987*. Proceedings of the USENIX C++ Workshop, November 1987.
- 121. B. Stroustrup: *Possible Directions for C++*. Proceedings of the USENIX C++ Workshop, November 1987.
- B. Stroustrup: *Multiple Inheritances for C++*. Proceedings of the EUUG Spring Conference, May 1987. Revised version in AT&T C++ Translator Release Notes, June 1989.
- 123. B. Stroustrup: *HICOOPS'87 Announcement. ACM Sigplan Notices*, pg 2. April 1, 1987.
- 124. B. Stroustrup: *An Overview of C++. ACM Sigplan Notices*, Special Issue, pp 7-18. October 1986.
- 125. B. Stroustrup: *What is Object-Oriented Programming?* Proceedings of the 14th ASU Conference, pp 69-84, August 1986.
- 126. B. Stroustrup: *The C++ Programming Language. IEEE Software.* January 1986.
- 127. B. Stroustrup: *A Set of C++ Classes for Co-routine Style Programming*. AT&T C++ Translator Release Notes, November 1985.
- 128. Leonie V. Rose and B. Stroustrup: *Complex Arithmetic in C++*. AT&T C++ Translator Release Notes, November 1985.
- 129. B. Stroustrup: *The C++ Programming Language*. Addison Wesley, October 1985.
- 130. B. Stroustrup: *A C++ Tutorial*. Proceedings of the Summer 1985 EUUG Conference. September 1985.
- 131. B. Stroustrup: *An Extensible I/O Facility for C*++. Proceedings of the Summer 1985 USENIX Conference, pp 57-70, June 1985.
- 132. B. Stroustrup: Data Abstraction in C. Bell Labs Technical Journal. Vol. 63. no 8 (Part 2), pp 1701-1732, October 1984. Also in UNIX System Reading and Applications, pp 119-150, Prentice-Hall, 1987.
- 133. B. Stroustrup: *A C++ Tutorial*. Proceedings of the 1984 National Communications Forum, September 1984.
- 134. B. Stroustrup: *Operator Overloading in C++*. Proceedings of the IFIP WG2.4 Conference on System Implementation Languages: Experience & Assessment, September 1984.
- 135. B. Stroustrup: *Adding Classes to the C Language: An Exercise in Language Evolution*. Software Practice and Experience, pp 139-161, February 1983.
- 136. B. Stroustrup: *An Experiment with the Interchangeability of Processes and Monitors*. Software Practice and Experience, pp 1011-1025, December 1982.
- 137. B. Stroustrup: *Classes: An Abstract Data Type Facility for the C Language. Sigplan Notices*, January 1982. Basic support for object-oriented programming, generic programming, and resource management.
- 138. B. Stroustrup: Long Return: A technique for Improving The Efficiency of Inter-Module Communication. Software Practice and Experience, pp 131-143, January 1981.
- 139. B. Stroustrup: *Specification of Software Systems for a Range of Execution Environments*. Proceedings of the Workshop on Fundamental Issues in Distributed Computing. Fallbrook, CA, December 1980.
- 140. B. Stroustrup: *An Inter-Module Communication System for a Distributed Computer System.* Proceedings of the First International Conference on Distributed Computing Systems, pp 412-418, October 1979.
- 141. B. Stroustrup: *On Unifying Module Interfaces. ACM Operating Systems Review*, Vol. 12, No. 1, pp 90-98, January 1978.

Also, about 100 technical reports for WG21, the ISO C++ standards committee, representing most of the major facilities added to C++ since 1989: http://www.stroustrup.com/WG21.html.