

## Professor Nicholas J. Higham, FRS—short resume (April 2018)

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Ph.D. (Numerical Analysis), 1985, University of Manchester. M.Sc. (Numerical Analysis and Computing), 1983, University of Manchester.

**Appointments:** University of Manchester: Royal Society Research Professor and Richardson Professor of Applied Mathematics 1998–, Director of the Manchester Institute for Mathematical Sciences (MIMS) 2004–2010, Professor of Applied Mathematics 1996–1998, Reader, 1992–1996, Senior Lecturer, 1989–1992; Lecturer in Mathematics, 1985–1989. Senior visitor, Institute for Mathematics and its Applications, University of Minnesota, January–March 1992. Visiting Assistant Professor of Computer Science, Cornell University, 1988–1989.

**Memberships:** Fellow of the Institute of Mathematics and Its Applications, International Linear Algebra Society, London Mathematical Society, American Mathematical Society, Association of Computing Machinery, Society for Industrial and Applied Mathematics (SIAM).

**Prizes and Fellowships:** Fellow of the Royal Society, 2007. Fellow of SIAM, 2009. Member of Academia Europaea, 2016. Fröhlich Prize, London Mathematical Society, 2008. Royal Society Wolfson Research Merit Award holder, 2003–2008. Royal Society Leverhulme Trust Senior Research Fellowship, 1999/2000. Junior Whitehead Prize, 1999, London Mathematical Society. Nuffield Foundation Science Research Fellow, 1991/1992. Leslie Fox Prize, 1988 (international prize for numerical analysis paper and presentation, age limit 31). Alston S. Householder Award VI, 1987 (international prize for best Ph.D. thesis in numerical algebra 1984–1987).

**Publications:** 142 refereed and 36 unrefereed publications.

**Citations:** Google Scholar: 18,716 citations, h-index 65. On ISI Web of Science 4,803 citations, h-index 42. Average citations per article: 39. Designated “Highly Cited Researcher” by Thomson/ISI, 2006.

**Books:** N. J. Higham, editor (and author of about 100 pages), with associate editors M. R. Dennis, P. Glendinning, P. A. Martin, F. Santosa and J. Tanner, *The Princeton Companion to Applied Mathematics*, Princeton University Press, xvii + 994 + 16 color plates, 2015. N. J. Higham, *Handbook of Writing for the Mathematical Sciences*, Second edition, SIAM, 1998, xvi+302 pp. D. J. Higham and N. J. Higham, *MATLAB Guide* Third edition, SIAM, 2017, xxvi+476 pp. N. J. Higham, *Accuracy and Stability of Numerical Algorithms*, Second edition, SIAM, 2002, xxx+680 pp. N. J. Higham, *Functions of Matrices: Theory and Computation*, SIAM, 2008, xx+425 pp.

**Impact:** Numerous Algorithms implemented in MATLAB, the NAG Library, and in various open source packages.

**Principal Research Grants in Last 5 Years:** PI, Royal Society Research Professor award (£1.3M), 2018–2023. PI, Knowledge Transfer Partnership between The University of Manchester and The Numerical Algorithms Group (NAG) Limited (£250k), 2018–2021. PI, ERC Advanced Grant “Functions of Matrices: Theory and Computation” (€2M), 2011–2016. PI, EPSRC, Novel Asynchronous Algorithms and Software for Large Sparse Systems, (£321k), 2010–2015. PI, EPSRC grant “Network: Numerical Algorithms and High Performance Computing” (£129k), 2011–2014.

**Supervision of Research Students:** 18 PhD students and 26 MSc students completed.

**Editing:** Member of editorial boards of Acta Numerica, 2012-, Forum of Mathematics, 2012-, Foundations of Computational Mathematics, 1999-; IMA Journal of Numerical Analysis, 1994-; Linear Algebra and its Applications, 1997-, senior editor from 2009; Numerical Algorithms, 2003-. PeerJ Computer Science, 2015-. (Founding) Editor-in-Chief of SIAM Fundamentals of Algorithms book series, 2003-.

**Professional Service:** President of SIAM, 2017-2018. Vice President at Large of SIAM, 2010-2013. Member of the CERFACS Scientific Council (Toulouse), 2015-. Member of Research Excellence Framework (REF) 2014 Subpanel 10 (Mathematical Sciences). Member of Research Assessment Exercise (RAE) 2008 subpanel 21 (Applied Mathematics). Member of Royal Society International Conference Grants and Short Visits (Panel 1: Pure and Applied Mathematics, Computer Science), 2006-2008 and chair 2009. Member of SIAM Board of Trustees, 2006-2008, 2009-2011. Member of EPSRC Peer Review College 2000-2008. Member of Leslie Fox Prize Committee, 2006-. Member of Board of Directors of International Linear Algebra Society, 1999-2001. Member of SIAM Council, 1996-2001. Chair of the SIAM Activity Group on Linear Algebra, 2001-2003.