

Curriculum vitae

Name: Adam Stuart Foster MPhys, PhD

Date and place of birth: 4th April 1975, Birmingham, England

Nationality: British

Married with two children, Seraphina (2005) and Isadora (2007)

Career breaks: 4 months 2006, 4 months 2008

Address: Department of Applied Physics
Aalto University

Email: adam.foster@aalto.fi

Web: physics.aalto.fi/sin

Researcher ID: [E-1275-2012](http://www.researcherid.com/rid/E-1275-2012)



Phd award: London, UK, 31st December, 2000

Academic career

Period	Institution	Position
4/2017 –	Dept. of Applied Physics, Aalto University	Full Professor
11/2017 – 9/2027	WPI Nano Life Science Institute (WPI-NanoLSI), Kanazawa, Japan	Research professor (10%)
10/2017 – 9/2019	Institut für Physikalische Chemie, Johannes Gutenberg-Universität Mainz, Germany	Visiting professor (10%)
4/2015 – 11/2017	Dept. of Electrical Engineering, Kanazawa University, Japan	Research professor (10%)
6/2012 – 3/2017	Dept. of Applied Physics, Aalto University	Associate Professor (tenured)
1/2009 – 5/2012	Dept. of Physics, Tampere University of Technology	Professor
8/2004 – 12/2009	Laboratory of Physics, Helsinki University of Technology	Academy of Finland senior research fellow
9/2000 – 7/2004	Laboratory of Physics, Helsinki University of Technology	Postdoctoral researcher
9/1997 – 9/2000	Dept. of Physics and Astronomy, University College London	PhD in Theoretical Solid State Physics
8/1993 – 8/1997	Department of Physics and Astronomy, Newcastle University	Masters in Theoretical Physics

- **Leader** of Surface and Interfaces at the Nanoscale (SIN) group - physics.aalto.fi/sin

- **Publications**

- Published over 150 refereed articles, including 36 in high-impact journals.

- 17 Physical Review Letters
- 5 Nature Communications
- 2 Advanced Materials
- 4 ACS Nano
- 2 Nanoletters
- 2 Science Advances
- 2 NPJ Computational Materials
- Journal of the American Chemical Society
- Review of Modern Physics

- Published 5 topical reviews.

- Published 5 book chapters and one textbook.

- *h-index* 46, over 10 000 total citations with around 700 citations per year, 67 citations per article (Google scholar <https://scholar.google.fi/citations?user=I0n9QYcAAAAJ>).

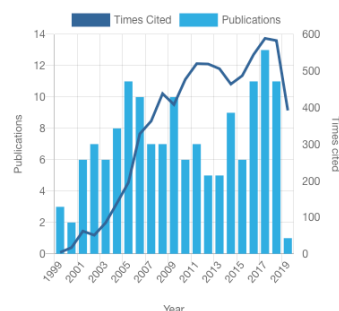
- *h-index* 40, over 7100 total citations with over 500 citations per year, 48 citations per article (ResearcherID <http://www.researcherid.com/rid/E-1275-2012>).

- **Prizes**

- Awarded **Väisälä prize** by Suomalainen Tiedeakatemia (2009).

- **Networks**

- Member of international **steering committee** of the PSI-K network.
- Founding member of NATRIBO ESF **network** on nanotribology and nanomanipulation (2001-2006), which continued as FANAS (2007-2012).



- **Vice director** of Aalto CECAM node.
- **Director** of Aalto Education Network in Condensed Matter Physics.
- **Conference organizer**
 - I have organized 28 international meetings, including several that have become annual events for many years:
 - *Towards Reality in Nanoscale Materials* (Levi, Finland, 2007 – 2019)
 - *Physics Boat Workshop* (Baltic Sea, 2012 - 2018)
 - *Autumn School in Computational Physics* (Helsinki, Finland, 2015 - 2016)
 - *Physics Days* (Helsinki, Finland, 2017) – programme chair
 - *NC-AFM 2018* (Helsinki, Finland, 2018)
 - *Machine Learning in Materials Science* (Helsinki, Finland, 2018 – 2019)
 - *The 1st International Conference on Big Data and Machine Learning in Microscopy* (Kanazawa, Japan, 2020)
- **Invited presentations at international meetings**
 - Presented over 30 **invited talks** at international meetings including ECOSS, Psi-k, MRS, AC-SIN, DPG, Gordon Research, Wilhelm and Else Heraeus.
- **Major Funding – over 2 M€ in the last 5 years**
 - Academy of Finland project “MERLIN” 100 000 €/year (2019 - 2023) (**coordinator**) – Machine learning solid-liquid interface structures.
 - Academy of Finland project “CATAFM” 100 000 €/year (2018 - 2022) (**coordinator**) – image recognition in Atomic Force Microscopy.
 - EU Horizon 2020 project “CritCat” 70 000 €/year (2016 - 2020) (**work package leader**) – machine learning approaches for catalytic nanoparticle design.
 - EU Horizon 2020 project “NOMAD” 70 000 €/year (2015 - 2018) (**partner**) – infrastructure for implementation of Big Data and Machine Learning in materials modelling.
 - Aalto Science Institute Thematic Network 100 000 €/year (2015 - 2016) “Machine Learning in Materials Science” (**vice director**).
 - EU FP7 project “PAMS” 160 000 €/year (2013 - 2017) (**work package leader**) – quantum and atomistic modelling of planar molecular electronic devices.
 - “Computational Nanoscience” Centre of Excellence 120 000 €/year (2012 - 2017) (**group leader**) – Scanning Probe Microscopy (SPM) modelling and nanoscale friction.
 - EU FP7 project “MORDRED” 125 000 €/year (2011 - 2015) (**coordinator**) – first principles modelling of silicon-oxide interfaces, with strong links to experimental and technological groups.
 - ESF FANAS project “NOMCIS” 60 000 €/year (2008 - 2011) (**coordinator**) – nanomanipulation.
 - ESF FANAS project “AFRI” 60 000 €/year (2008 - 2011) (partner) – friction.
 - “Computational Nanoscience” Centre of Excellence 80 000 €/year (2006 - 2011) (**group leader**) - SPM modelling.
- **Teaching**
 - Prepared full lecture courses on “Surface Science”, “Introduction to electronic structure” and “Introduction to Quantum Mechanics”.
 - **Author of textbook** - Scanning Probe Microscopes: Atomic scale engineering by forces and currents' Adam S. Foster and Werner A. Hofer Springer, New York (2006).
 - The PI has **supervised** 17 postdoctoral researchers, 16 PhD students and 21 undergraduate researchers.
- **Administration**
 - Director of the Masters programme in Physics (2018 - 2019).
 - Department representative in School of Science Doctoral studies programme committee (2014 -).
 - Regularly served as member and chairman in tenure track evaluation committees.
 - Coordination of midterm evaluation programme at the Department of Applied Physics.