Short CV for Anders Yeo

Anders Yeo
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- **Name:** Anders James Anthony Yeo

- **Nationality:** Australian

- **Birth date:** 14 October 1970

- **E-mail:** AndersYeo@gmail.com

- **Hobbies:** Squash (previously on the Danish national team), tennis, bridge, golf, running, mathematics and computer science.

- **Family:** Wife Angela Yeo and son Lukas Yeo (born 26-09-2008).

- **Languages:** Danish (fluent), English (fluent), Swedish (fluent), German (good/intermediate).

1 Education and Employment

From Mar-2015: Full Professor at the *Engineering Systems & Design* pillar, Singapore University of Technology and Design, Singapore.

Apr-2013 to Feb-2015: Visiting Professor at the *Engineering Systems & Design* pillar, Singapore University of Technology and Design, Singapore.

Feb-2012 to Apr-2013: Senior Research Fellow at the Department of Mathematics, University of Johannesburg, South Africa. This was a full time research position.

March-2003 to Jan-2012: Reader in Computer Science, Department of Computer Science, Royal Holloway, University of London, London, U.K. The academic year 2009/2010 was spent in Singapore (at the National Institute of Education) on sabbatical leave.

September-2001 to March-2003: Lecturer at the Department of Computer Science, Royal Holloway, University of London, London, U.K.

September-1999 to September-2001: Post.Doc. at the University of Aarhus, Denmark.

September-1998 to September-1999: Post.Doc. at the University of Victoria, Victoria, Canada. This was financed by the Danish Natural Science Research Council.

January-1998 to July-1998: Employed as a research assistant at Odense University.

September-1993 to December-1997: Ph.D. studies, titled "Generalisations of Tournaments", at the Department of Mathematics and Computer Science, Odense University, Denmark. (Note that the Ph.D. was on the so-called 4+4 program, which means that the Ph.D. and the undergraduate studies are set out to take four years each.)

September-1989 to September-1993: Undergraduate studies, during which I submitted my first research paper titled *Selecting a Satisfactory Secretary.*

2   Administrative duties at Royal Holloway

My administrative duties at the Singapore University of Technology and Design (SUTD) include the following.

The Lead of the Mathematics Academic Committee. Overall responsibility of the universities undergraduate mathematics teaching. For eaxample, review the curricula and teaching resources, explore training programmes, new pedagogy and teaching tools and assist the Associate Provost in assigning teaching duties.

Lead Math-1. Math-1 is the first mathematics course taken by all undergraduate students at SUTD. Apart from giving all the lectures and setting exams and homeworks, etc., I will do all the admin around the course. That is, assign teaching schedules, organing make-up tests and bootcamps, etc.

My administrative duties for the Department of Computer Science at Royal Holloway included the following major posts.

2010-2011: *Member of the Admissions Team.*

2006-2009: *Head of the Third Year Project Committee.*

2004-2005: *Director of Graduate Studies.*

2003-2005: *Director of Research.*

Other administrative duties for the department have included posts such as *joint Library Representative, member (before becoming the head) of the Third Year Project Committee, Director of M.Sc. Computer Science by Research, Postgraduate Admissions* and *Degree Programme Director for CS with Optimisation.* Apart from my one year sabbatical I was furthermore the departments representative on the Science Faculty Board between 2009 and 2012.

3   Grants

I have obtained the grants listed below. Apart from these grants, I have received travel money from my collaborators grants for visits to countries such as South Africa, Denmark, USA, France, Canada and Germany.

2015-2018: I have a S\$100,000 start-up grant at the Singapore University of Technology and Design.

2007-2010: Professor Gregory Gutin and myself obtained an EPSRC grant titled *Parameterized Problems on Directed Graphs.* (Approximate value £403,000).

2009: Professor Michael Henning received £10,000 from the prestigious Harry Oppenheimer Trust for the purpose of supporting the collaboration between myself and Michael Henning. It is meant to cover our respective visits to South Africa and U.K. (Value £10,000).

2008/2009: Professor Michael Henning and myself obtained a joint travel grant from The Royal Society (UK) and the National Research Foundation (SA) under their *South African - UK Network Agreement* scheme. Note that this involved a complete separate application from the previous year's grant. (Value £1,780).

2007-2008: Together with researchers from the London School of Economics (LSE) and two French universities (INRIA, Sophia-Antipolis and LIRMM, University of Montpellier) we obtained an Alliance grant under the Franco-British Partnership Programme. This is sponsored by the British Council and the French Ministry. (Approximate value £2,000 per year adding up to £4,000).

2007/2008: Professor Michael Henning and myself obtained a joint travel grant from The Royal Society (UK) and the National Research Foundation (SA) under their *South African - UK Network Agreement* scheme. (Value £1,892).

2003-2005: Professor Gregory Gutin and myself obtained a Leverhulme Trust grant titled *Domination Analysis in Combinatorial Optimisation.* (Approximate value £74,000).

1998/1999: I received a very prestigious grant from the Danish natural science research council which funded my one year Post.Doc. at the University of Victoria, Victoria, Canada. There was only 1 such grant given each year across Denmark. (Approximate value £35,000).

4 Conferences and Collaborations

I have been an invited speaker at several conferences and workshops, such as the *DREI meetings in DIMACS*, the *Oberwolfach meetings*, the *Dagstuhl meetings* and the *Danish Graph Theory meetings*. I have also been a plenary speaker at several conferences, such as The *Erster Aachener Tag der Graphentheorie* (Germany, 9/01/2004) where I gave the main plenary talk of the conference. Below I list the computer science and mathematics conferences where I gave invited/plenary talks within the last 8 years.

Invited speaker (2008-2015):

- The Dagstuhl meeting on optimality and tight results in parameterized complexity (Germany, 2-7/11/2014).
- The Danish Graph Theory Meeting (Denmark 1-4/11/2012).
- Applications of Parameterized Algorithms and Complexity (APAC 2012) in Warwick (UK, 8/07/2012).
- A Henri Poincare institute workshop on Graph Protection (France, 4-7/07/2012).
- The Dagstuhl meeting on Data Reductions and Problem Kernels (Germany, 10-15/06/2012).
- The International Conference on Recent Trends in Graph Theory and Combinatorics (India, 12-15/08/2010).

Plenary speaker (2008-2015):

- Graph Theory 2015 at Hotel Storebælt, http://www.imada.sdu.dk/~btoft/GT2015/ (Denmark, 23-28/8/15) where I will be one of the fifteen plenary speakers.

- 36ACCMCC in Sydney, http://conferences.science.unsw.edu.au/36accmcc/ (Australia, 10-14/12/12) where I was one of the eight plenary speakers.

- Worker 2011 (The Third Workshop on Kernelization, Vienna, Austria 2-4/9/2011), where I was a keynote speaker.

- The 52nd annual congress of the South African Mathematical Society (South Africa, 2-4/11/2009) where I was one of the six plenary speakers.

- Graph Theory 2008 at Sandbjerg Manor (Denmark, 17-23/08/2008, where I gave one of the main invited talks).

5 Refereeing and Editorial Memberships

In the last 5 years I have been called upon by more than 25 journals and several conferences as a referee,

I am also a section editor for the journal **Discrete Mathematics and Theoretical Computer Science** (DMTCS).

6 Supervision

At Royal Holloway I supervised between 5 and 10 3rd-year project students every year. I have furthermore supervised four Ph.D. students, which are

Arezou Soleimanfallah: She obtained her Ph.D. with the title "Fixed-Parameter Tractable Algorithms in Graph Theory" in 2009.

Mark Jones: He obtained his Ph.D. with the title "Above and below guarantee parameterizations for combinatorial optimisation problems" in 2013.

Robert Crowston: He obtained his Ph.D. with the title "Algorithms for Parameterized Constraint Satisfaction Problems" in 2013.

Gabriele Muciaccia: He obtained his Ph.D. with the title "Polynomial Kernels for Graph and Hypergraph Optimisation Problems" in 2014.

I have also supervised a number of Masters students.

7 Publications

I have 158 papers that are published or to appear. Of these 155 are published and 3 are to appear. Of the published papers 149 are published in journals and 17 in conferences (so 11 are published in both).

See the following link for a full list of all my papers, including statistics on my co-authors and journals.

http://www.cs.rhul.ac.uk/home/anders/PAPERS/Anders_Yeo_papers_overview.html

Furthermore note that practically all the below papers are published in very strong journals, with a considerable number of the publications being in the absolute top journals in the area (such as *Combinatorica*, *Journal of Graph Theory* and *Journal of Combinatorial Theory, Series B*).

8 Teaching

At Singapore University of Technology and Design I taught the followin courses.

10.001: *Advanced Math 1* (Calculus), undergraduate level (2013 and 2014).

In 2015 I will be in charge of the Advanced Math 1 course with over 350 students and a team of 10 faculty.

40.002: *Optimization*, undergraduate level (2013).

40.510: *Linear Optimization*, graduate level (2013).

10.004: *Advanced Math 2* (linear algebra and multivariate calculus), undergraduate level (2014).

41.520: *Discrete Mathematics*, graduate level (2014).

I have have been in charge of and lectured the following courses at Royal Holloway:

- Algorithms and Complexity.

- Algorithms and Complexity I (which is based on the above course).

- Our first year C++ programming course (I taught the second term).

- Our main second year software development course. I taught and organized the second term together with Professor Fionn Murtagh.

- I taught the first half of the first term of CS1211, which was our first year Java programming course. I furthermore organised the tutorials for CS1211, which was the first year they ran.

- I designed and organised the lab-sessions for the second term of CS1801, which is our first year Java programming course.

- Computational Optimization.

At Aarhus University I taught Graph Algorithms (2000 and 2001) and Discrete Mathematics (2000).

At Odense University I taught Discrete Mathematics (1998).