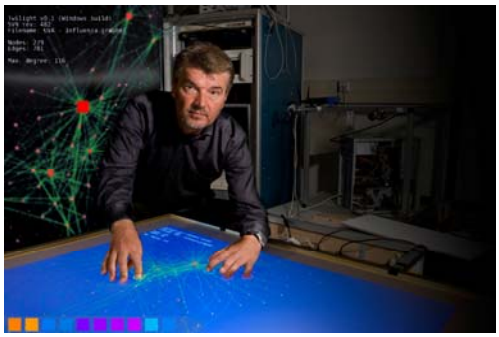

CV: Peter Sloot

Computational Sciences, UvA.

Research interests: I try to understand how nature processes information. I study this 'natural information processing' in complex systems by computational modeling and simulation as well as through formal methods. My work is applied to a large variety of applications with a focus on -but not limited to- Biomedicine. Recent work is on modeling the virology and epidemiology of infectious diseases, notably HIV, through Complex Networks and Cellular Automata. Recently in my work I try to build bridges to socio-dynamics. Currently I lead two large EU projects: ViroLab[1] and DynaNets[2] and supervise research from various NIH, NSF and NWO and Royal Academy projects, see my WebPages[3] and my Research Group[4].

Education: M.Sc. Chemistry (1983), M.Sc. Physics (1983), PhD Computer Science (1988).

Honors and awards: Visiting Professor Santa Fe Institute on Complex Systems (1995), NNV Distinguished Professor Computational Physics (1996). Visiting Professor (1996, ITB Bandung, Indonesia), IEEE selected member TFCC (2005 -). Visiting professor (Griffith University, Brisbane, Australia, 2005). Visiting Professor NTU (Singapore, 2009), WorldComp 2009 award (Las Vegas, 2009), I/O-award Dutch Science Foundation (Twente, 2009, NL).

Working experience:
Research Assistant Dutch Cancer Institute (1983 - 1988),
Post-doctoral researcher (UvA 1989 - 1992);
Post-doctoral researcher (USA Caltech 1992);
Assistant Professor (UvA 1993),
Associate Professor (UvA 1995),
Distinguished Professor (NNV/UvA 1996-2001),
Scientific Advisor MacNeal-Scwendler Company (1997 – 2000),
Scientific Boardmember Biocomputing (Virology Networks™ 1999- 2001),
Chair of the Scientific Advisory Committee of the ASCI KNAW (1998 – 2003),
Full Professor (UvA 2001 -),
Advisory board Informatica kamer (2003 -),
Advisory board Lorentz centrum (2004 - : http://www.lc.leidenuniv.nl/),
External Faculty NTU (Singapore) (2010 -).

Academic activities:

- Scientific Director of the Institute for Informatics (UvA).
- Chair Computational Science (UvA).
- Visiting professor and external Faculty NTU (Singapore).
- *Editor in Chief* of the new Elsevier science: Journal of Computational Science[5].

[1] http://www.virolab.org/
[2] http://www.dynanets.org/
[3] http://staff.science.uva.nl/~sloot/
[4] http://www.science.uva.nl/research/scs
[5] http://ees.elsevier.com/jocs/

- *Editor in Chief* of the Elsevier's science journal: Future Generation of Computing Systems[6].
- Associate editor of The International Transactions on Systems Science and Applications[7] and editorial board member of various other journals.
- General Chair of the ICCS series of conferences on Computational Sciences. Co-edited with Prof. Jack Dongarra over 24,000 peer reviewed pages of research from this conference series in Springer's LNCS and later in Elsevier's Procedia on Computer Science[8].
- Director of the International MSc program on Computational Science[9].
- External member of the UK eScience Strategic Advisory Team[10].
- Advisor to Dutch NSF and KNAW (Academy of Science) on Computational Sciences.
- Supervised over 23 Doctoral PhD Dissertations[11].
- The average number of international keynotes talks and invited lectures over the past 5 years were 8 per year[12].

Acquisition and valorization:
Over the past decade acquired funding for:

- 11 NWO (NSF) and KNAW (Academy of Science) and NIH projects and
- 9 large EU ICT projects.

2 patents:

- *CACE*: Computer Assisted Centrifugal Elutriation of White Blood-cells: USA patent: 4.939.081. (Year 1990).
- *Retrogram*: A decision support system for HIV drugs ranking, Trademark. World coverage: 713908. (Year 2006).

Publications and disseminations: Published over 430 papers, books and edited volumes. I have given over 20 Radio and TV interviews on various scientific results, including two documentaries on my work[13]. A selection of recently published work[14]:

A. Sottoriva, J. J.C. Verhoeff, T. Borovski, S. K. McWeeney, L. Naumov, J. Paul Medema, L. Vermeulen and P. M.A. Sloot, *Modeling Cancer Stem Cell Driven Tumor Growth Reveals Invasive Morphology and Increased Phenotypical Heterogeneity*. CANCER RESEARCH, in press (2010). Impact Factor = 7.5.

P.M.A. Sloot; P.V. Coveney; G. Ertaylan; V. Müller; C.A.B. Boucher and M.T. Bubak: *HIV Decision Support: From Molecule to Man*, Phil . Trans. R. Soc. A, vol. 367, nr 1898 pp. 2691-2703. 2009. (DOI: 10.1098/rsta.2009.0043). Impact Factor = 2.5.

A.M. Shan; P.M.A. Sloot; R. Quax; Y. Zhu and W. Wang: *Complex Agent Networks explaining the HIV epidemic among homosexual men in Amsterdam*, Mathematics and Computers in Simulation, (in press). (2009). Impact Factor is = 0.9

A.G. Hoekstra; S.F. Portegies Zwart; M.T. Bubak and P.M.A. Sloot: *Towards Distributed Petascale Computing*, Chapter 8, in D.A. Bader, editor, *Petascale Computing: Algorithms and Applications*, pp. 147-164. Chapman & Hall, mar 2008. ISBN: 9781584889090, ISBN 10: 1584889098.

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[6] http://www.elsevier.com/locate/fgcs
[7] http://fatech.org.uk/press/itssa/edit%20board.htm
[8] http://www.iccs-meeting.org
[9] http://www.science.uva.nl/research/scs/edu/imcs/
[10] http://www.nesc.ac.uk/index.html
[11] http://staff.science.uva.nl/~sloot/index_files/Page799.html
[12] http://staff.science.uva.nl/~sloot/index_files/Page737.html
[13] http://uva.computationalscience.nl/news/news
[14] http://www.science.uva.nl/research/pscs/papers/sloot.html

P.M.A. Sloot; A. Tirado-Ramos; I. Altintas; M.T. Bubak and C.A.B. Boucher: *Decision Support in Individualized E-Health*, IEEE Computer, (Cover feature) vol. 39, nr 11 pp. 40-46. November 2006.