

5.7 Scientific Papers Resulting from graduation projects: (our masters' students are emphasized in the list of authors)

1. **A. Theiakos**, J.M.C. Tas, H. van der Lem, D. Kandhai, Ultra-Fast Mortgage Portfolio Valuation for Scenario Analysis using Finite Difference and Monte Carlo Methods on a GPU, *Journal of Computational Finance*, Submitted, 2013
2. **L.J. Dijkstra**, A.V. Yakushev, P.A.C. Duijn, A.V. Boukhanovsky, P.M.A. Sloot, Inference of the Russian Drug Community from One of the Largest Social Networks in the Russian Federation, *Quality & Quantity*, in print, 2013
3. V.V. Kashirin, **L.J. Dijkstra**, A Heuristic Optimization Method for Mitigating the Impact of a Virus Attack, *Procedia Computer Science*, Volume 18, 2013, Pages 2619--2628
4. **L.J. Dijkstra**, P.K. Gerke, T. Dijkstra, An Extension of the Interactive Activation Model to Reading Russian Cyrillic: RIA, *Behavior Research Methods*, Submitted, 2013
5. **E Josephine T. Daub** · Roeland M.H. Merks Endothelial Cell Migration During Angiogenesis A Cell-Based Model of Extracellular-Matrix-Guided, *Bull Math Biol* (2013) 75:1377–13
6. C. Tamulonis, M. Postma, H. Marlow, C. Magie, **J. de Jong** and J.A. Kaandorp, Morphometrics & Modeling of *Nematostella vectensis* Gastrulation, *Developmental Biology* 351:217--228, 2011
7. **S. Jaddoe**, M. Thompson, and A. D. Pimentel, "Signature-based Calibration of Analytical Performance Models for System-level Design Space Exploration", in *Transactions on High-Performance Embedded Architectures and Compilers (Trans. on HiPEAC)*, Vol. 4 (No. 4), 2011.
8. **A. Sottoriva**; P.M.A. Sloot; J.P. Medema and L. Vermeulen: *Exploring Cancer Stem Cell Niche Directed Tumor Growth*, *Cell Cycle*, vol. 9, nr 8 pp. 1--8. Landes Bioscience, 2010
9. **P. van Stralen** and A.D. Pimentel, "A Trace-based Scenario Database for High-level Simulation of Multimedia MP-SoCs", in the *Proc. of the 10th Int. Conference on Embedded Computer Systems: Architectures, Modeling and Simulation (SAMOS '10)*, pp. 11--19, Samos, Greece, July 2010.
10. **N. Zarrabi**; E. Mancini; J.-C. Tay; S. Shahand and P.M.A. Sloot: *Modeling HIV-1 intracellular replication: two simulation approaches*, in P.M.A. Sloot; G.D. van Albada and J. Dongarra, editors, ICCS 2010, in series *Procedia Computer Science*, vol. 1, nr 1 pp. 555--564. Elsevier B.V., Amsterdam, May 2010. ISSN: 1877--0509. (DOI: 10.1016/j.procs.2010.04.059) (outstanding paper award)
11. **P. van Stralen** and A.D. Pimentel, "Scenario-Based Design Space Exploration of MPSoCs", in the *Proc. of the IEEE International Conference on Computer Design (ICCD '10)*, Amsterdam, Netherlands, Oct. 2010.
12. **J.B.W. Geerdink** and A.G. Hoekstra: *Comparing entropic and multiple relaxation time lattice Boltzmann methods for blood flow simulations*, *Int. J. Mod. Phys. C*, vol. 20, nr 5 pp. 721--733. 2009. (DOI: 10.1142/S0129183109013947)
13. R.J. Strijkers; **L.Y.L. Muller**; M. Cristea; R.G. Belleman; C.T.A.M. de Laat; P.M.A. Sloot and R.J. Meijer: *Interactive Control over a Programmable Computer Network Using a Multi-touch Surface*, in G. Allen; J. Nabrzyski; E. Seidel; G.D. van Albada; J.J. Dongarra and P.M.A. Sloot, editors, *Computational Science -- ICCS 2009: 9th International Conference*, Baton Rouge, LA, USA, Proceedings, Part II, in series *Lecture Notes in Computer Science*, vol. 5545, pp. 719--728. Springer, Berlin, Heidelberg, May 2009. ISBN--13: 978--3--642-- 01972--2.
14. **S. Jaddoe** and A. D. Pimentel, "Signature-based Calibration of Analytical System-level Performance Models", in the *Proc. of Int. Symposium on Systems, Architectures, Modeling and Simulation (SAMOS '08)*, pp. 268--278, LNCS, Samos, Greece, July, 2008.
15. J.A. Kaandorp, J.G. Blom, **J. Verhoef**, M. Filatov, M. Postma and W.E.G. Müller, *Modelling genetic regulation of growth and form in a branching sponge* *Proc. Roy. Soc. B.* 275:2569--2577, 2008
16. R.G. Belleman; **J. Bédorf** and S.F. Portegies Zwart: *High performance direct gravitational N-body simulations on graphics processing units II: An implementation in CUDA*, *New Astronomy*, (Provided by the Smithsonian/NASA Astrophysics Data System) vol. 13, pp. 103--112. feb 2008. (DOI: 10.1016/j.newast.2007.07.004)
17. S.F. Portegies Zwart; R.G. Belleman and **P.M. Geldof**: *High-performance direct gravitational N-body simulations on graphics processing units*, *New Astronomy*, (Provided by the Smithsonian/NASA Astrophysics Data System) vol. 12, pp. 641--650. nov 2007. (DOI: 10.1016/j.newast.2007.05.004)
18. **M. Woudenberg** and L.A. Naumov: *Development of Tools for Performing Computations on FPGA Systems*, Using CAME&L Software, in *Proceedings of XIV All-Russian Guidance Conference "Telematics--2007"*, (In Russian) pp. 527--529. SPbSU ITMO, 2007.

19. **J. Cui**, J.A. Kaandorp *Mathematical Modelling of Calcium Homeostasis in Yeast Cells* *Cell Calcium* 39:337---348, 2006
20. **J. Vidal Rodriguez**, J.A. Kaandorp, M. Dobrzynski and J.G. Blom. *Spatial Stochastic Modelling of the phosphoenolpyruvate---dependent phosphotransferase (PTS) pathway in Escherichia coli*, *Bioinformatics*, 22:1895---1901, 2006
21. **T.A. Kvaløy**; E. Rongen; A. Tirado---Ramos and P.M.A. Sloot: *Automatic Composition and Selection of Semantic Web Services*, in P.M.A. Sloot; A.G. Hoekstra; T. Priol; A. Reinfeld and M.T. Bubak, editors, *Advances in Grid Computing --- EGC 2005*, in series *Lecture Notes in Computer Science*, vol. 3470, pp. 184---192. Springer, Berlin, Heidelberg, February 14---16 2005. ISBN 3---540---26918---5.
22. **S. de Ridder**, A.S.Z Belloum, and L.O. Hertzberger (2005): *Grid Service based Collaboration for VL---e: Requirements, Analysis & Design"* Proc. European Grid Conference, Feb. 14---16th 2005, Science Park Amsterdam, The Netherlands, pp 154---163.
23. **B. Leskes** and P.M.A. Sloot: *Unlearning Phenomena in Co---evolution of Non---uniform Cellular Automata*, in P.M.A. Sloot; B. Chopard and A.G. Hoekstra, editors, *Cellular Automata: 6th International Conference on Cellular Automata for Research and Industry, ACRI 2004*, Amsterdam, The Netherlands, October 25---28, 2004, in series *Lecture Notes in Computer Science*, vol. 3305, pp. 172---181. Springer Verlag, Heidelberg, October 2004. ISBN: 3---540---23596---5.
24. **D.P. Gavidia Simonetti**; E.V. Zudilova and P.M.A. Sloot: *A Client---Server Engine for Parallel Computation of High---Resolution Planes*, in M.T. Bubak; G.D. van Albada; P.M.A. Sloot and J.J. Dongarra, editors, *Computational Science --- ICCS 2004: 4th International Conference, Kraków, Poland, June 6---9, 2004, Proceedings, Part III*, in series *Lecture Notes in Computer Science*, vol. 3038, pp. 970---977. Springer Verlag, Heidelberg, June 2004. ISBN 3---540---22116---6.
25. **H.S.M. Cramer**; V. Evers; E.V. Zudilova and P.M.A. Sloot: *Usability Evaluation of a Simulated Vascular Reconstruction System*, in *Proceedings of the VIRART Virtual Reality Design and Evaluation Workshop 2004*, (CD---ROM, Panel VI (Design methods/process and evaluation). University of Nottingham, United Kingdom, January 2004. ISBN 0---85358---123---1.
26. J.A. Kaandorp and **R.A. Garcia Leiva**. *Morphological analysis of two--- and three--- dimensional images of branching sponges and corals*. In: *Morphometrics and their applications in Paleontology and Biology*, A.M.T. Elewa (Ed.), Springer---Verlag, pp 83---94, 2004
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28. **M. Thompson** and A. D. Pimentel, "A High---level Programming Paradigm for SystemC", in the *Proc. of the 4th Int. Workshop on Systems, Architectures, MOdeling, and Simulation (SAMOS '04)*, pp. 530---539, LNCS, Samos, Greece, July, 2004.
29. **C.P. Salzberg**; A.T. Antony and H. Sayama: *Genetic diversification and complex genealogy of self---replicators discovered in simple cellular automata: A preliminary report*, *Journal of Three---dimensional Images*, vol. 17, nr 4 pp. 103---109. 2003.
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32. J.A. Kaandorp, **E.A. Koopman**, P.M.A. Sloot, R.P.M. Bak, M.J.A. Vermeij and L.E.H. Lampmann. *Simulation and analysis of flow patterns around the scleractinian coral. Madracis mirabilis (Duchassaing and Michelotti)*. *Phil. Trans. R. Soc. Lond. B358 (1437): 1551 --- 1557*, 2003.
33. **T. Krul**; J.A. Kaandorp and J.G. Blom: *Modelling Developmental Regulatory Networks*, in P.M.A. Sloot; D. Abramson; A.V. Bogdanov; J.J. Dongarra; A.Y. Zomaya and Y.E. Gorbachev, editors, *Computational Science --- ICCS 2003*, Melbourne, Australia and St. Petersburg, Russia, *Proceedings Part I*, in series *Lecture Notes in Computer Science*, vol. 2660, pp. 688---697. Springer Verlag, June 2003. ISBN 3---540---40194---6.
34. P.M.A. Sloot; **F. Chen** and C.A. Boucher: *Cellular Automata Model of Drug Therapy for HIV Infection*, in S. Bandini; B. Chopard and M. Tomassini, editors, *5th International Conference on Cellular Automata for Research and Industry, ACRI 2002*, Geneva, Switzerland, October 9---11, 2002. *Proceedings*, in series *Lecture Notes in Computer Science*, vol. 2493, pp. 282---293. October 2002.