

Curriculum Vitae

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born: 1983
marital status: Single

Key qualifications

I am a research scientist at SINTEF ICT, Department of Applied Mathematics, working with accelerated scientific computing. I also hold a 20% position as associate professor (Norwegian: *førsteamanuensis*) at the Norwegian School of Information Technology, where I teach graphics programming. My web page contains more details, and up-to-date information about me.

Education

2010: Ph.D. in Scientific Computing, Department of Informatics, University of Oslo.

2007: M.Sc. in Scientific Computing, Department of Informatics, University of Oslo.

Employment

2010 – present: Research scientist at the Department of Applied Mathematics, SINTEF ICT.

2010 – present: Associate professor (20% position) at the Norwegian School of Information Technology.

2010: Visiting researcher at the National Center for Computational Hydrosience and Engineering.

2007 – 2010: Advisor at the Department of Applied Mathematics, SINTEF ICT, part time.

2007: Developer at the Norwegian Meteorological Institute, part time.

Publications

- [1] André Rigland Brodtkorb and Martin Lilleeng Sætra. Explicit shallow water simulations on GPUs: Guidelines and best practices, 2012. [in review].
- [2] André Rigland Brodtkorb, Martin Lilleeng Sætra, and Trond Runar Hagen. GPU programming strategies and trends in GPU computing. *Journal of Parallel and Distributed Computing*, 2012. [to appear].
- [3] André Rigland Brodtkorb, Trond Runar Hagen, Knut-Andreas Lie, and Jostein Natvig. Simulation and visualization of the Saint-Venant system using GPUs. *Computing and Visualization in Science*, 13(7):1–13, 2011.
- [4] André Rigland Brodtkorb, Martin Lilleeng Sætra, and Mustafa Altınakar. Efficient shallow water simulations on GPUs: Implementation, visualization, verification, and validation. *Computers & Fluids*, 55:1–12, 2011.
- [5] Martin Lilleeng Sætra and André Rigland Brodtkorb. Shallow water simulations on multiple GPUs. In *Proceedings of the Para 2010 Conference*, pages 56–66, . Springer Berlin / Heidelberg, 2011.
- [6] A. R. Brodtkorb. *Scientific Computing on Heterogeneous Architectures*. PhD thesis, University of Oslo, 2010. ISSN. 1501-7710, No. 1031.
- [7] André Rigland Brodtkorb, Christopher Dyken, Trond Runar Hagen, Jon Mikkelsen Hjelmervik, and Olaf Storaasli. State-of-the-art in heterogeneous computing. *Scientific Programming*, 18(1):1 – 33, May 2010.
- [8] André Rigland Brodtkorb and Trond Runar Hagen. A comparison of three commodity-level parallel architectures: Multi-core CPU, the Cell BE and the GPU. In *Mathematical Methods for Curves and Surfaces*, pages 70–80, . Springer Berlin / Heidelberg, February 2010.
- [9] André Rigland Brodtkorb. The graphics processor as a mathematical coprocessor in matlab. In *Complex, Intelligent and Software Intensive Systems, International Conference*, pages 822–827, Los Alamitos, CA, USA, 2008. IEEE Computer Society.
- [10] André Rigland Brodtkorb. An asynchronous API for numerical linear algebra. *Scalable Computing: Practice and Experience*, 9(3):153–163, 2008.

- [11] André Rigland Brodtkorb. A MATLAB interface to the GPU. Master's thesis, University of Oslo, 2007.
- [12] André Rigland Brodtkorb, Trygve Fladby, and Martin Lilleeng Sætra. PLU factorization on a cluster of GPUs using fast ethernet. [technical report], 2007.
- [13] André Rigland Brodtkorb. Matrix-matrix multiplication in MATLAB using the GPU. [technical report], 2006.

Other

- Over 20 talks in international workshops and conferences.
- Guest lecturer for courses at the University of Oslo.
- External examiner for 3 Masters thesis' at the University of Oslo.
- External examiner for Masters level course at the University of Oslo.
- Spent two years in Saudi Arabia (1995 – 1997) at an English Preparatory & Grammar School.