

Emma Falck: Resumé

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- LANGUAGES Finnish (native), Swedish (native), English (excellent), French (satisfactory).
- EDUCATION Doctor of Science in Technology (with distinction), Department of Engineering Physics and Mathematics, Helsinki Univ. of Technology, Mar 2005.
- Thesis: Multiscale Modeling of Biological and Soft Matter.
 - Supervisors: Dr. Ilpo Vattulainen and Prof. Tapio Ala-Nissila.
- Master of Science in Technology (with distinction), Department of Engineering Physics and Mathematics, Helsinki Univ. of Technology, Aug 2000.
- Thesis: Critical Dynamics and Diffusion on W(001) Surface.
 - Supervisor: Prof. Tapio Ala-Nissila.
- Matriculation Exam, Katedralskolan i Åbo, Jun 1996.
- CURRENT POSITION Sep 2005 – : *Beckman Institute Postdoctoral Fellow*, Beckman Institute for Advanced Science and Technology, Univ. of Illinois at Urbana-Champaign.
- RESEARCH INTERESTS Biomolecular complexes, membrane physics, polymer dynamics, dynamics of complex fluids, computer simulations, multiscale modeling, model development, coarse-graining techniques, hybrid models.
- SIMULATION TECHNIQUES Classical Molecular Dynamics, Steered Molecular Dynamics, Brownian Dynamics, Stochastic Rotation Dynamics, Dissipative Particle Dynamics (DPD), Monte Carlo, Inverse Monte Carlo.
- PREVIOUS EMPLOYMENT Apr 2005 – Aug 2005: *Postdoctoral Researcher*, Biological Physics and Soft Matter Group, Laboratory of Physics, Helsinki Univ. of Technology.
- Sep 2000 – Mar 2005: *PhD Student/Researcher* (full-time), Biological Physics and Soft Matter Group, Laboratory of Physics, Helsinki Univ. of Technology.
- Jun 1998 – Aug 2000: *Research Assistant* (part-time), Statistical Physics and Complex Materials Group, Laboratory of Physics, Helsinki Univ. of Technology.
- Sep 1996 – Dec 1997: *Research Assistant* (part-time), Laboratory of Electrical Engineering and Health, Tampere Univ. of Technology.
- Jun 1997 – Aug 1997: *Programmer* (full-time), Global Ozone Monitoring by Occultation of Stars (GOMOS) Project, Space Systems Finland.
- Jun 1996 – Aug 1996: *Programmer* (full-time), The Expert Electromyographer Project, Neuroconsult OY.

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- PUBLICATIONS** See updated list of publications at <http://www.ks.uiuc.edu/~efalck/>.
- CONFERENCE ABSTRACTS** Around twenty talks or posters at national and international conferences and workshops such as American Physical Society March Meeting, Biophysical Society Annual Meeting, and Annual Conference of the Finnish Physical Society.
- HONORS**
- 2005: Beckman Institute Postdoctoral Fellowship. Awarded by Beckman Institute for Advanced Science and Technology at Univ. of Illinois at Urbana-Champaign.
 - 2001: The McKinsey Award. Awarded to the top MSc degree of the year at Helsinki Univ. of Technology.
- AWARDS**
- 2005: Helsinki Univ. of Technology, 3000 e. For excellence in studies.
 - 2002: Helsinki Univ. of Technology, 830 e. For excellence in studies.
 - 2000: Helsinki Univ. of Technology, 830 e. For excellence in studies.
 - 1999: The Student Union of Helsinki Univ. of Technology, 830 . For excellence in studies.
 - 1999: Teknologföreningen, 670 e. For excellence in studies.
- GRANTS**
- 2006: Finnish Academy of Science and Letters (The Vilho, Yrjö, and Kalle Väisälä Foundation), 3000 e. Travel grant.
 - 2005–06: Academy of Finland, 18800 e. Scholarship for Researcher Training and Research Abroad.
 - 2005: Emil Aaltosen säätiö, 5000 e. For covering moving expenses and travel to the USA.
 - 2004: Tekniikan Edistämissäätiö, 4000 e. For computational studies of biological physics.
 - 2004: Finnish Academy of Science and Letters (The Vilho, Yrjö, and Kalle Väisälä Foundation), 3500 e. Travel grant.
 - 2002: Finnish Academy of Science and Letters (The Vilho, Yrjö, and Kalle Väisälä Foundation), 5000 e. For computational studies of soft matter and travel.
 - 2001: The Finnish Society of Sciences and Letters (The Magnus Ehrnrooth Foundation), 2500 e. Travel grant.
 - 2001: Finnish Academy of Science and Letters (The Vilho, Yrjö, and Kalle Väisälä Foundation), 16700 e. For full-time PhD studies and travel.
 - 2000: Victoriastiftelsen, 830 e. For acquiring computer equipment.

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- PROFESSIONAL & DEPARTMENTAL SERVICE Referee for Biophysical Journal and National Science Foundation (NSF).
Responsible for organizing the novel Beckman Institute Graduate Student Seminar Series, starting spring term 2006.
- SUPERVISING ACTIVITIES AT HELSINKI UNIV. OF TECHNOLOGY Co-supervision of MSc thesis of Mikko Kupiainen.
Co-supervision of MSc thesis of Teemu Murtola.
Co-supervision of special assignment (pre-thesis prior to MSc) of Teemu Murtola.
Co-supervision of special assignments of Olli Punkkinen.
Co-supervision of special assignments of Mikko Kupiainen.
- TEACHING EXPERIENCE AT HELSINKI UNIV. OF TECHNOLOGY “*Physics I*” (mechanics): teaching assistant; 4 h/week; fall; years 2001–2004.
“*Physics II*” (electromagnetism): teaching assistant; 4 h/week; spring; years 2000–2003.
“*Physics IV*” (theoretical and quantum mechanics): teaching assistant; 4 h/week; spring; years 2004 and 2005.
“*Introduction to Soft Matter Physics*”: teaching assistant; 2 h/week; spring; years 2001–2003.
- SUMMER SCHOOLS International summer schools and training workshops, e.g.,
- Innovations in Nanoscale Modeling and Imaging of Biological Systems, Houston, Texas, Apr 17–23, 2006;
 - Modeling of Biomolecular Systems, Helsinki, Finland, May 30–Jun 1, 2005;
 - Hairy Interfaces and Stringy Molecules, Odense, Denmark, Aug 13–17, 2003;
 - SoftSimu 2002—Novel Methods in Soft Matter Simulations, Espoo, Finland, May 31–Jun 6, 2002;
 - Understanding Molecular Simulations 2002, Amsterdam, The Netherlands, Apr 8–19, 2002;
 - Physics of Biomembranes and Complexation, Espoo, Finland, Aug 15–16, 2001; and
 - Methods in Molecular Simulation 2001, Manchester, UK, Jul 1–10, 2001.